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CONCHOLOGIA ICONICA:
OR
ILLUSTRATIONS
OF THE
SHELLS OF MOLLUSCOUS ANIMALS.

VOL. IX.

CONTAINING MONOGRAPHS OF THE GENERA

SPONDYLUS.
NERITINA

NATICA.
NAVICELLA.
SIPHONARIA.

NERITA.
LATHA.

BY

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"The works of God are so worthy of their author, that besides the impresses of his wisdom and goodness that are left as it were upon their surfaces, there are a great many more curious and excellent tokens and effects of Divine artifice in the hidden and innermost recesses of them: and these are not to be discovered by the perfunctory looks of oseitant and unskilful beholders: but require, as well as deserve, the most attentive and prying inspection of inquisitive and well-instructed considerers. And sometimes in one creature there may be I know not how many admirable things, that escape a vulgar eye, and yet may be clearly discerned by that of a true naturalist."—*Boyle*.

LONDON:

LOVELL REEVE, HENRIETTA STREET, COVENT GARDEN

1856.



JOHN EDWARD LEITCH, CLINICAL,
JULIE QUINN STREET, ST. LENA'S INN, FIELDS.

MONOGRAPH

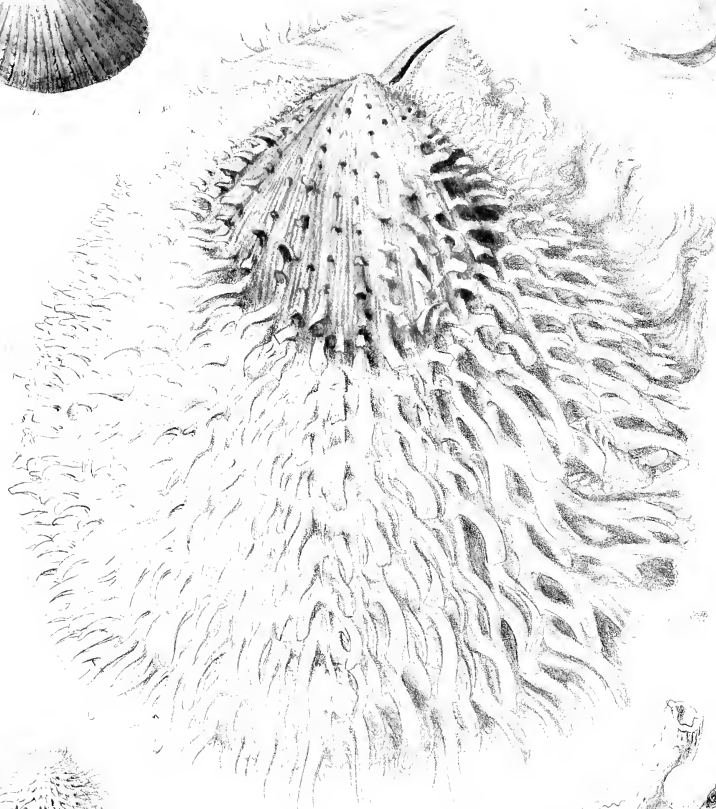
OF THE GENUS

S P O N D Y L U S.

* Not a *S. B.*

But shows some touch in freckle, streak, or stain
Of His unvarnished pencil — *Copied*

.....



SPONDYLUS.

PLATE I

Genus SPONDYLUS, *Linnaeus*.

Testa affixa, inequivalvis, irregularis, plus minusve auriculata, radiata striata et lirata, raris costata, varice auriculari et spinosa; umbones aequalibus, acri cordiformi perispermis, planis, aculeo pedicellifero, pedicellifero separatis. Corio dentibus duobus solidis, reflectis in utraque valve, cuneis intersectis, ligamentum in cordiformi inter se recipiuntibus. Impressio muscularis subliralis.

Shell attached, inequivalve, irregular, more or less auriculated, radiately striated and ridged, rarely ribbed, variously prickled and spined; umbones equal, peculiarly separated by a very large flat hinge area, more and more produced with age. Hinge with two solid reflected teeth in each valve, strongly interlocking, and receiving the ligament between them. Muscular impression subliralis.

The *Spondylus*, or Thorny Oyster, is one of the earliest known shells. When Aristotle occupied himself with philosophic interest in describing the animals of the Mediterranean, the *S. quatuordecus* lived, as now, in all its royal panoply of purple and white, and the name adopted by Linnaeus when engaged upon the grand formula of nomenclature which has become the law of naturalists, was that of the old philosopher of Greece, namely, Σπονδύλος. The species added to this genus in modern times are comparatively few; Lamarck numbered twenty-one; Sowerby, in his recent monograph in 'Thesaurus Conchyliorum,' only thirty-four, and I have but two or three to add. The species are mostly well known to collectors, all having an attractive interest from their singularity of form and beauty of colouring. Their growth is peculiar and extremely irregular, varying according to the circumstances of their place of attachment: it may be remarked, however, that it is on the upper valve that the shell develops its truest specific character.

The *Spondyli* are confined to no particular locality. Limited as they are in species, they are distributed very generally over the globe south of the latitude of the Mediterranean. There are no species on the coast of Britain.

Species 1. (Mus. Cuning.)

SPONDYLUS PACIFICUS. *Spind. testâ obliquè latè triangulâ, compressâ, radiatâ foveâ tuberculato-striatâ et lirata.*

iris subnatactâ flexuosa, tenuissimè squamatis, squamis interduca foveâ obsoletis; cubiti vel rosæ, interduca albidâ, nitida radiatâ.

THE PACIFIC SPONDYLUS. Shell obliquely broadly triangularly compressed, radiately finely imbricately striated and ridged, ridges somewhat twistedly flexuous. Very finely scaled, scales sometimes almost obsolete. Ruddy or rose-coloured, sometimes whitish, rayed with vermillion.

Hab. Lord Hood's Island, Pacific Ocean; Cuning.

This species has been sometimes regarded as a variety of *S. undus* which follows, but it is uniformly distinguished by a characteristic obliquely triangular compressed growth, rayed with exceedingly fine squamate ridges and striae. Mr. Cuning possesses it in several varieties.

Species 2. (Mus. Cuning.)

SPONDYLUS NUDUS. *Spind. testâ subelongatè-triangulâ, gibbosâ, umbones versus rotundatè-auriculâ, radiatâ densè striatâ et interduca lirata, striis rix tuberculis, subliralis, iris posticis versus marginem interduca squamatis, auricularis brevibus; cuneis nitidâ, iris utris raris plerumque radiatis.*

THE BUNDLED SPONDYLUS. Shell somewhat elongately triangular, gibbous, rotundately swollen towards the umbones, radiately densely striated and sometimes ridged, striae scarcely imbricated, nearly smooth, posterior ridges sometimes scudled towards the margin, auricles smooth; bright scarlet, generally rayed with distant white lines.

CHEMNITZ, Conch. Cab. vol. xi. p. 225, pl. 203. f. 1989. 1890.

Hab. Mauritius and Philippine Islands; Cuning.

A richly pointed vermillion shell, mostly rayed at rather distant intervals with white lines. It is at once distinguished from the preceding species by its elevated regular gibbous growth, and absence of scales, except in advanced specimens at the ends of the posterior ridges.

Species 3. (Mus. Cuning.)

SPONDYLUS VARIANS. *Spind. testâ oblongo-auriculatâ, concavo-depressâ, subirregulari, spinis brevibus squamatis cupis radiatis, spinis cuneis irregularibus, cuneis*

superiori prope umbonem liris parvis acutis tribus squamiferis distantibus radiatâ, valvâ inferiori plerumque multo foliâ et concameratâ; albâ, circa umbonem purpureo-ru et aurantio tinctâ, liris tribus parvis radiatibus suberectoribus.

THE VARIABLE SPONDYLUS. Shell oblong-orbicular, convexly depressed, somewhat irregular, copiously rayed with very irregular short squamate spines, upper valve rayed near the umbo with three small sharp seated ridges, lower valve generally much foliated and chambered; white, stained around the umbo with purple-rose and orange, the three small radiating ridges being darker in colour.

SOWERBY, Appendix to Catalogue of Polynesian Shells collected by Mr. Stutchbury.

Spondylus Delessertii, Cuvier.

Hab. Pacific Islands.

This fine species is distinguished in all its stages of growth by three widely separated fine squamate ridges radiating from the umbo, of a darker red tint than the surrounding colour of the shell. It is of very irregular growth, sometimes depositing a series of basal laminae in the lower valve one over the other, and hermetically closing water in the chambers, in which state, often of great size, it is known to collectors by the name of the Water Spondylus.

Species 4. (Mus. Cuming.)

SPONDYLUS CILIATUS. *Spand, testâ suborbiculari, levâti, concavo-depressâ, liris cœcis radiatâ, liris spinis*

levis submembranaceis longis erectis copiosè aculeatis, lirarum interstitiis subtilissimè dense striatis; stramineo-albâ, prope umboem sparsim punctatâ.

THE CILIATED SPONDYLUS. Shell suborbicular, thin, convexly depressed, rayed with fine ridges, ridges copiously thorned with rather long, erect, thin, submembranaceous spines, interstices between the ridges very finely densely striated; straw-tinged white, sparingly dotted with light purple.

BRODERIP, Proc. Zool. Soc. 1833, p. 5.

Hab. Lord Hood's Island, Pacific Ocean (found on the reefs attached to a piece of coral); Cuming.

Copiously ciliated throughout with long erect spines, which are exceedingly thin and have a submembranaceous character.

Species 5. (Mus. Cuming.)

SPONDYLUS GUSSONI. *Spand, testâ ovali, subgibbâ, umbonibus convexo subattenuatâ, radiatim striatâ, stris minutè imbricatis; albâ.*

GUSSON'S SPONDYLUS. Shell oval, rather gibbous, a little attenuated towards the umbones, radiately striated, striae minutely imbricated; white.

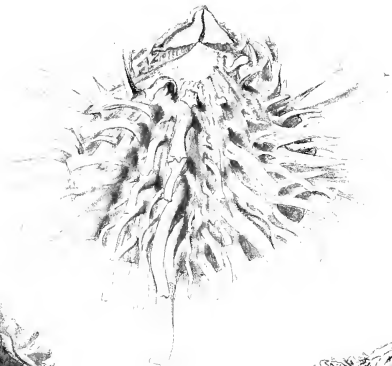
COSTA, Philippi, Enum. Moll. Sicil. vol. 1, p. 87.

Spondylus gussoni, Cuvier.

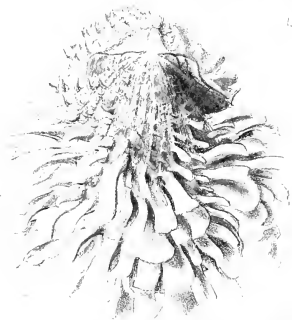
Spondylus albâtes, Broderip.

Hab. Mediterranean.

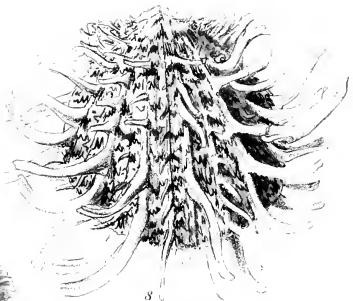
Of small gibbous size, with somewhat the aspect of a *Terebratula*, attached mostly in groups.



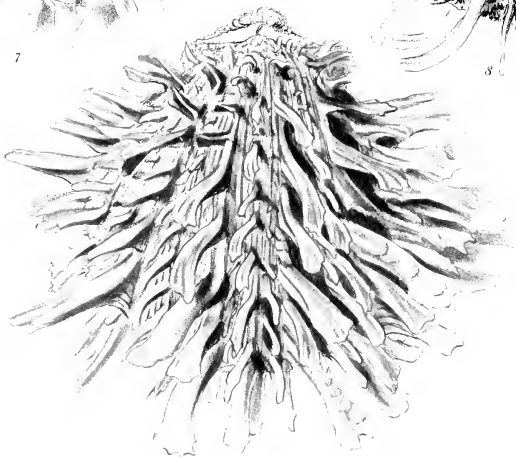
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SPONDYLUS.

PLATE II.

Species 6. (Mus. Cuming.)

SPONDYLUS LUCACANTHA. *Spond. testā orbiculari, vel subtriangulo-orabī, crassiusculā, ventricosā, costis sex principatibus radiatā, costis spiniis squamatis elongatis subseriatis irregularibus arcuatis, interstitiis sinuatis imbricatostriatis, liris trilus aculeato-squamatis; cræco-rubra vel viride vitæo-rubra, spinis albis.*

THE WHITE-SPINED SPONDYLUS. Shell orbicular or somewhat triangularly ovate, rather thick, ventricose, rayed with six principal ribs, ribs armed with irregular slightly arched elongated squamate spines, interstices minutely imbricately striated, with three thorny squamate ridges; yellowish-red or bright scarlet-red, spines white.

PRODERIP, Pro. Zool. Soc. 1833, p. 5.

Hab. Island of La Plata, West Columbia.

A very rare and beautiful species at once distinguished by its pure white arcuately squamate spines springing out of a deep ochre or vermilion-red ground.

Species 7. (Mus. Cuming.)

SPONDYLUS SINENSIS. *Spond. testā subtriangulo-orbiculari, depressiusculā, valde irregulari, radiatā multistriatā et interdum costatā, profuse squamata, squamis cæcis marginibus unguis utracosus et plucipulantis, et plus minus lateraliter contortis; spadicis-caruā, circa umbonem pallide sanguineo-ochroleā, interdum alba, purpureo sparsim variegatā.*

THE CHINESE SPONDYLUS. Shell somewhat triangularly orbicular, rather depressed, very irregular, radiately many-striated and sometimes ribbed, profusely scaled, scales more numerous towards the margin and flatly palmated, and more or less twisted on one side; fawn-flesh, clouded with pale blood-colour about the umbones, sometimes white, sparsely variegated with purple.

SOWERBY, Thesaurus Conch. vol. i. p. 427, pl. 87, f. 32-34.

Hab. China.

Distinguished by a peculiar fawn-flesh colour, with no marking except a little faint clouding of blood-smear about

the umbo. The shell is extremely irregular in growth, and the spines mostly terminate in a characteristic palmate-contortion.

Species 8. (Mus. Cuming.)

SPONDYLUS VARIEGATUS. *Spond. testā suborbiculari, Pectinifurcā, gibbosā, subquicqualei, radiatā costatā et striatā, costis spiniis longiusculis renreus arcuatis; alba, lineis angulato-flexuosis purpureo-fuscis pictā.*

THE VARIEGATED SPONDYLUS. Shell somewhat orbicular.

Pecten-shaped, gibbous, nearly equivalve, radiately ribbed and striated, ribs armed with rather long recurved spines; white, painted with angularly flexuous purple-brown lines.

CHEMNITZ, Conch. Cab. vol. vii. pl. 45, f. 46 f.

Eadem, Spondylus variegatus, Chemnitz.

Hab. Amboyua.

A very characteristic feature in this species are the angularly flexuous purple-brown lines with which it is more or less profusely painted upon a white ground. The valves are nearly alike, and the spines mostly curved backwards.

Species 9. (Mus. Cuming.)

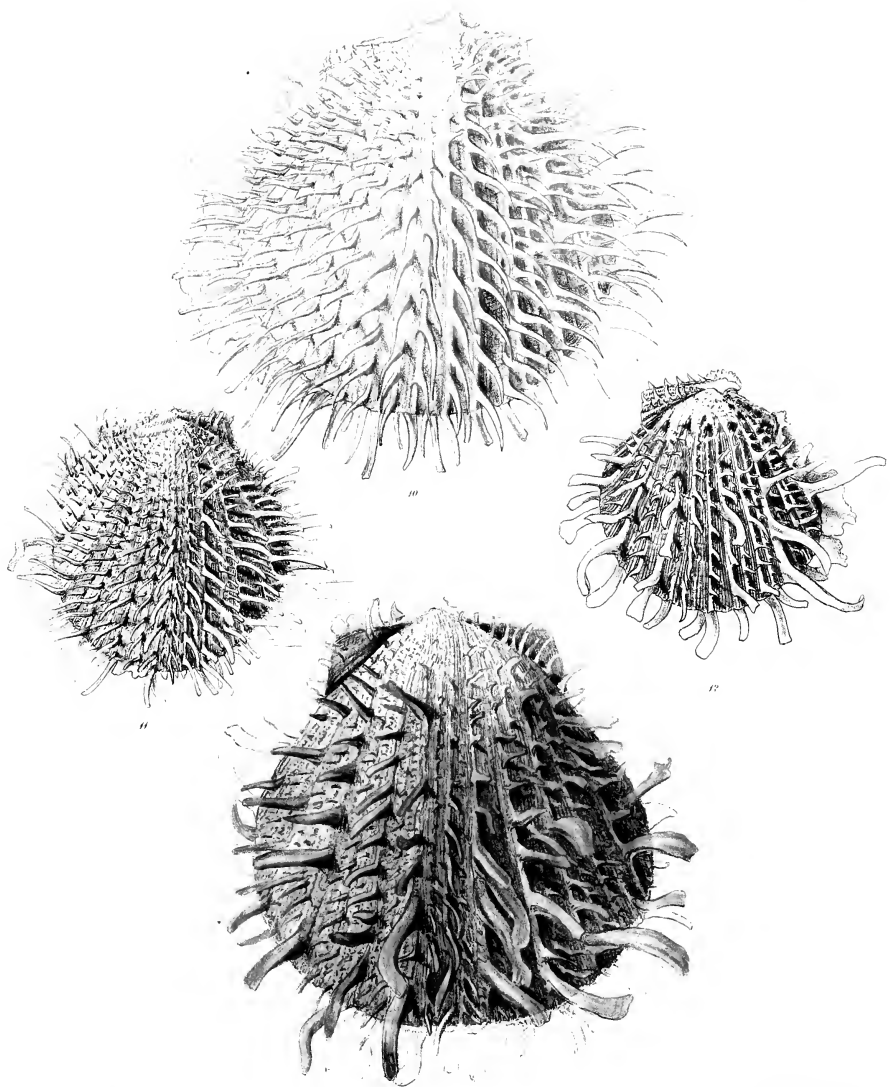
SPONDYLUS PRINCEPS. *Spond. testā subtriangulo-orabī, crassā, interdum ponderosā, radiatā costatā et liratā, costis lirisque copiose squamato-spinosā, spinis valde irregularibus, unac posticè unac anticè distortis; intencè corallo-rubra.*

THE PRINCE SPONDYLUS. Shell somewhat rounded, thick, sometimes ponderous, radiately ribbed and ridged, ribs and ridges copiously squamate spined, spines very irregular, distorted sometimes in a posterior direction, sometimes anteriorly; deep coral-red.

PRODERIP, Pro. Zool. Soc. 1833, p. 4.

Hab. Island of Plata, West Columbia (found attached to coral rocks at the depth of seventeen fathoms); Cuming.

Chiefly distinguished from *S. pictorum*, to which it is nearly allied by the irregular laterally inclined contortions of the spines, and deep coral-red colour.



SPONDYLUS.

PLATE III.

Species 10. (Mus. Cuming.)

SPONDYLUS AFRANTICUS. *Spaad, testâ subcincto-oratâ, ventricosiscaudâ, radiatâ multicostratâ, costis saepeficatis, spicis brevissimis acutis copiose auricatis, pectinâ auriculatâ, circo subaurea albâ, tuberculatâ, plus minus decubitatâ.*

THE ORANGE SPONDYLUS. Shell somewhat twistedly ovate, rather ventricose, radiately many-ribbed, ribs superficial, copiously prickled with rather short-sharp spines; bright orange, around the umbos unspotted white, more or less denuded of spines.

LAMARCK, ANIM. SENS. VERT. VOL. VII. P. 150.

Hab. Seychelle Islands.

This well-known species is chiefly distinguished from its nearest ally *S. Bulleri*, by the sharp curved prickly character and abundance of the spines, and by the absence of marking in the vicinity of the umbos.

Species 11. (Mus. Cuming.)

SPONDYLUS MULTISELOSUS. *Spaad, testâ oratâ, tenuicostâ, irregulari, radiatâ dense striatâ et lincatâ, liris spicis tenuibus brevibus acutis, et copiose minute auricatis; purpurascaudâ-circatâ, circo indigne plus minus obscure auriculatâ, circo subaurea sanguinea umbulatâ, cuticâ auriculatâ.*

THE MANY-BRISTLED SPONDYLUS. Shell ovate, rather thin, irregular, radiately densely striated and ridged, ridges armed with short thin spines and copiously minutely prickled; purple-flesh, more or less obscurely spotted throughout with yellow, clouded with blood-sneakers, and very prickly about the umbos.

Hab. Philippine Islands; Cuming.

It is a striking characteristic of this species to be everywhere crowded with small prickles, in addition to the prickly spines.

Species 12. (Mus. Cuming.)

SPONDYLUS MUS. *Spaad, testâ triquano-orbiculari, gibbosâ, subirregulari, radiatâ striatâ et lincatâ, liris subultrastriatis, spicis longissimis, irregularibus, ad brachia cincto-syntholitis sparsis acutis; purpurascaudâ, hic illic saturatâ umbulatâ, circo subaurea albâ, spicis albâ.*

THE MOUSE SPONDYLUS. Shell triangularly orbicular, gibbous, somewhat irregular, radiately striated and ridged, ridges rather distant, sparingly armed with rather long irregular spines, twistedly spatulate at the end; light purple, here and there dark-clouded, white around the umbos, spines white.

Hab. Philippine Islands; Cuming.

Of swollen growth, distinguished by half-a-dozen principal ribs, out of which the spines spring in a peculiar contorted manner, and become spatulate at the extremity.

Species 13. (Mus. Cuming.)

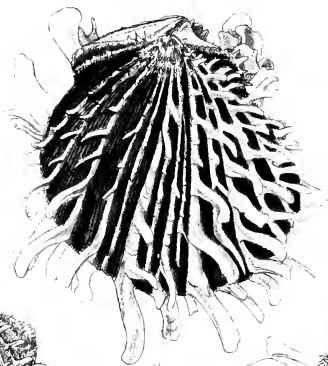
SPONDYLUS GEDAROPUS. *Spaad, testâ oblongo-orbiculari, radiatâ dense striatâ et lincatâ, stria granulatâ-asperis, liris squamato-spinosis et auricatis, spicis cuticâ irregularibus, praesens cinctis, hic illic truncatis; radiâ superiori indigne intus purpurea, cuticâ inferiori albâ, auriculâ pectinâ lincatâ.*

THE ASS'S FOOT SPONDYLUS. Shell oblong-orbicular, radiately densely striated and ridged, striae granularly roughened, ridges squamately spined and prickled, spines very irregular, prominently twisted, here and there truncated; upper valve everywhere deep purple, lower valve white, partially tinged with orange.

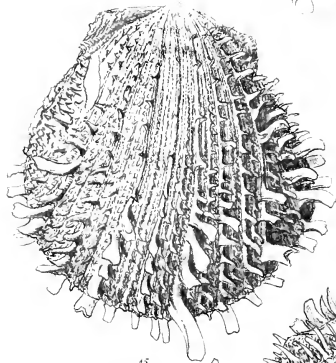
LINNAEUS, Syst. Nat. 12th edit. p. 1156

Hab. Mediterranean.

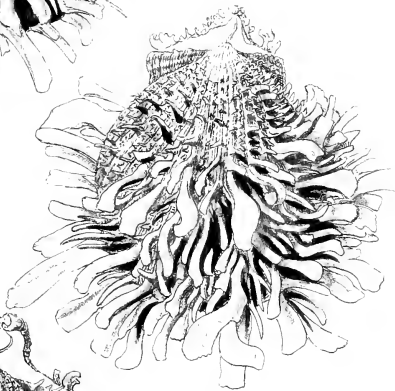
This well-known species has a very characteristic plan of sculpture, and is readily distinguished by its peculiar contrast of colouring; the upper valve being of a uniform rich purple, whilst the lower valve is white, partially tinged with orange.



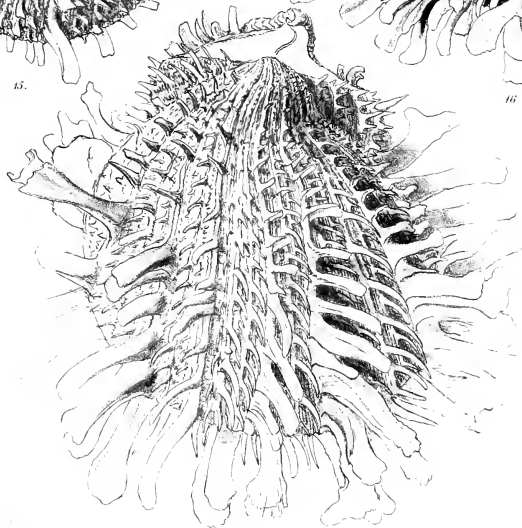
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SPONDYLUS.

PLATE IV.

Species 14. (Mus. Cuming.)

SPONDYLUS BUTLERI. *Spond. testā trigono-oratā, radiatū striatā et liratā, liris cæcis marginata obsolete, prope nabeam obscure squamato-auriculatis, deinde spinosis, spinis subcapillis, latis, paucis, præsertim cæcatis; præpurpureo-auriculata, circa nabeam inhabitā, spinis ciccide auriculatis.*

BUTLER'S SPONDYLUS. Shell triangularly ovate, radiately striated and ridged, ridges oblique towards the margin, obscurely squamately prickled near the umbo, then spined, spines rather large, broad, few, prominently twisted; purple-blackish, clouded around the umbo, spines bright orange.

Hab. Philippine Islands; Cuming.

Uniformly distinguished from *S. unrautius* by its more regular Pecten-shape growth and blackish ground-colouring, and by the broad straggling character of the spines, which are much fewer in number and more distant.

Species 15. (Mus. Cuming.)

SPONDYLUS MULTIMERICUS. *Spond. testā oratā, gibbosa, subrotā, irregulari, radiatū deusè elevato-striatā, stercis nudiq̄ue acutè squamato-auriculatis, spinis paucis, brevis, rotule irregularibus; ciccide corvino-aurantiā, circa nabeam albā, præpurpureo pallidè auriculatā.*

THE MANY-PRICKLED SPONDYLUS. Shell ovate, somewhat gibbous, rather rude, irregular, radiately densely elevately striated, striae everywhere sharply squamately prickled, with a few short very irregular spines; bright scarlet-orange, white, faintly spotted with purple around the umbo.

Hab. Philippine Islands; Cuming.

A shell of somewhat rude growth, of a bright scarlet-orange colour throughout, everywhere covered with minute prickly scales, interspersed with a few irregular short spines.

Species 16. (Mus. Cuming.)

SPONDYLUS BARBATUS. *Spond. testā subtrigono-oratā,*

radiatū conspicuè liratā et striatā, liris squamato-auriculatis, cæcis marginata deusè spinosis, spinis aunc angustis, paucis, aunc testē squamato-spathulatis, ciccide contortis; pallidè spiciferā, caracina-rusea plus minus liratā, prope nabeam intusè rufū spicisā punctatā.

THE BEARDED SPONDYLUS. Shell somewhat triangularly ovate, radiately conspicuously ridged and striated, ridges squamately prickled, densely spined towards the margin, spines now narrow, small, now broadly squamately spatulate, variously twisted; light fawn-colour, more or less stained with flesh-rose, sparingly dotted near the umbo with deep red.

Hab. Philippine Islands; Cuming.

Of the same peculiar typical character as *S. Sincensis*, from which it differs, nevertheless, specifically in detail of sculpture. The spines are of a curiously mixed kind, some being small and narrow, others broadly squamately spatulate and contorted.

Species 17. (Mus. Cuming.)

SPONDYLUS AMERICANUS. *Spond. testā oratā, aunc Pecteniformi, aunc rotule gibbosa, radiatū striatā et liratā, liris sex principallibus squamato-spinosis, spinis interdum longis, ad terramena foliaceo-palmatis, liris paucis intercaetis plus minus auriculatis; albā, circa nabeam præpurpureo-vel corvino-rufā.*

THE AMERICAN SPONDYLUS. Shell ovate, sometimes Pecten-shaped, sometimes rudely gibbous, radiately striated and ridged, six principal ridges squamately spined, spines sometimes long and foliaceously palmated at the end, ridges small, more or less prickly; white, purple or scarlet-red around the umbo.

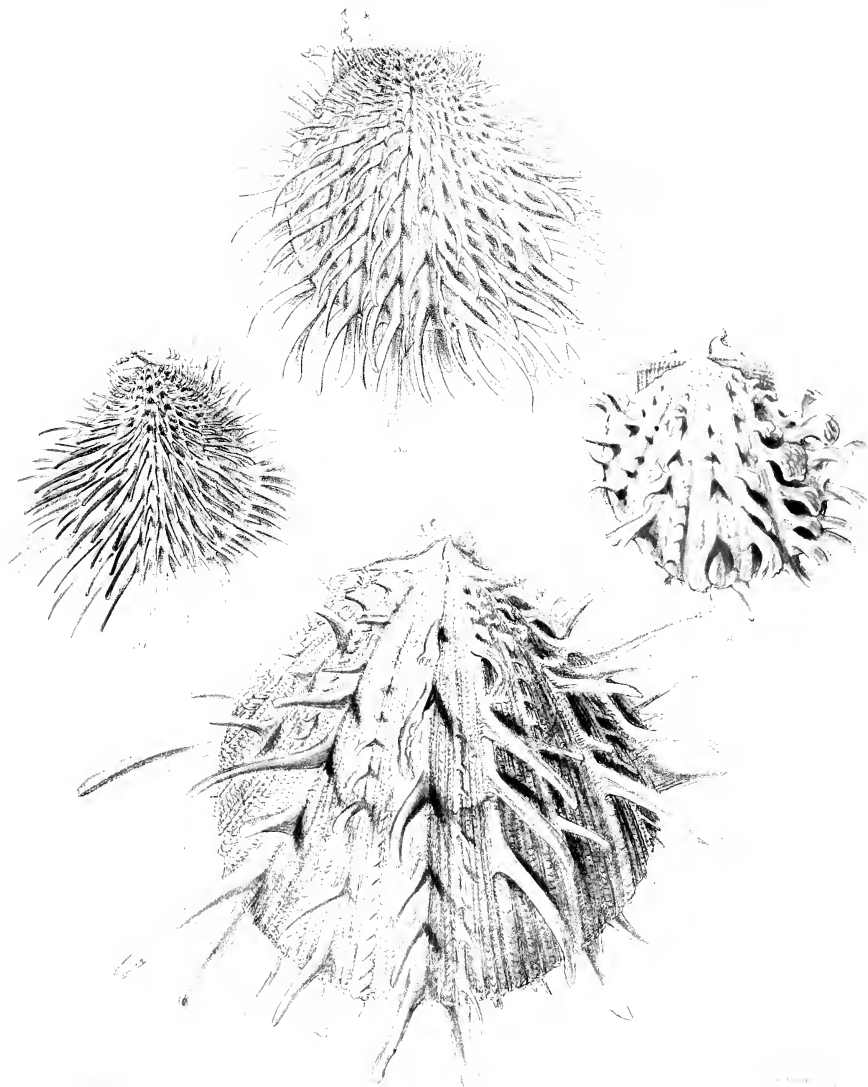
LAMARCK, Anim. sans vert. vol. vii. p. 185.

Eadem. Spondylus aculeoides, longispina, et auriculatus.

Lamarck.

Hab. Bermudas.

This well-known species varies extremely in growth, being sometimes rudely gibbously formed, with the spines crowded and irregular, as in the specimen here figured, sometimes with the spines fewer and more regular, and much longer.



SPONDYLUS.

PLATE V

Species 18. (Fig. 8.) (Mus. Cuming.)

SPONDYLUS FLURISPINOSUS. *Spaad, testâ ovali, valvula subobovata levitâ, liris profuse spinosis, spina attenuatis prælongis, his illis prominente cæcatis, spina circa umbonem uniuersis, minutis; caudalâ, circa umbonem fuscis-nigris punctatâ, spina interdum cæcâ, apicalis.*

THE MANY-SPINED SPONDYLUS. Shell ovate, radiately somewhat obscurely ridged, ridges profusely spined, spines attenuated, very long, here and there prominently curved, spines around theumbo numerous, minute; white, dotted around theumbo with brown-black, spines sometimes bright orange.

Encyclopédie Méthodique, pl. 194 f. 1

Hab. Philippine Islands: Cuming

This species, it will be seen, is quite distinct from *S. vorantius*, the spines being more delicately attenuated and much more numerous, while the shell is characterized in the young state by a multitude of fine prickles, interspersed at the base with brown-black spots.

Species 19. (Mus. Cuming.)

SPONDYLUS CROCETUS. *Spaad, testâ ovali, ventricosa, valvis subaquilibus, rulle irregulariter costatis, costis rotatis, his illis squamatis, squamis brevibus, latiusculis, rulle irregularibus, interdum spatulatis: nodique cæcâ arenatis-erosæ.*

THE YELLOW SPONDYLUS. Shell ovate, ventricose, valves nearly equal, rudely irregularly ribbed, ribs blunt, here and there squamate, scales short, rather broad, very irregular, sometimes spatulate: everywhere bright orange-yellow.

CHEMNITZ, Conch. Cab. vol. 7, p. 77, pl. 45 f. 163

Hab. Moluccas.

A shell of somewhat gibbous growth, rudely spatulately scale-spined, of a uniform rich orange-yellow colour throughout.

Species 20. (Mus. Cuming.)

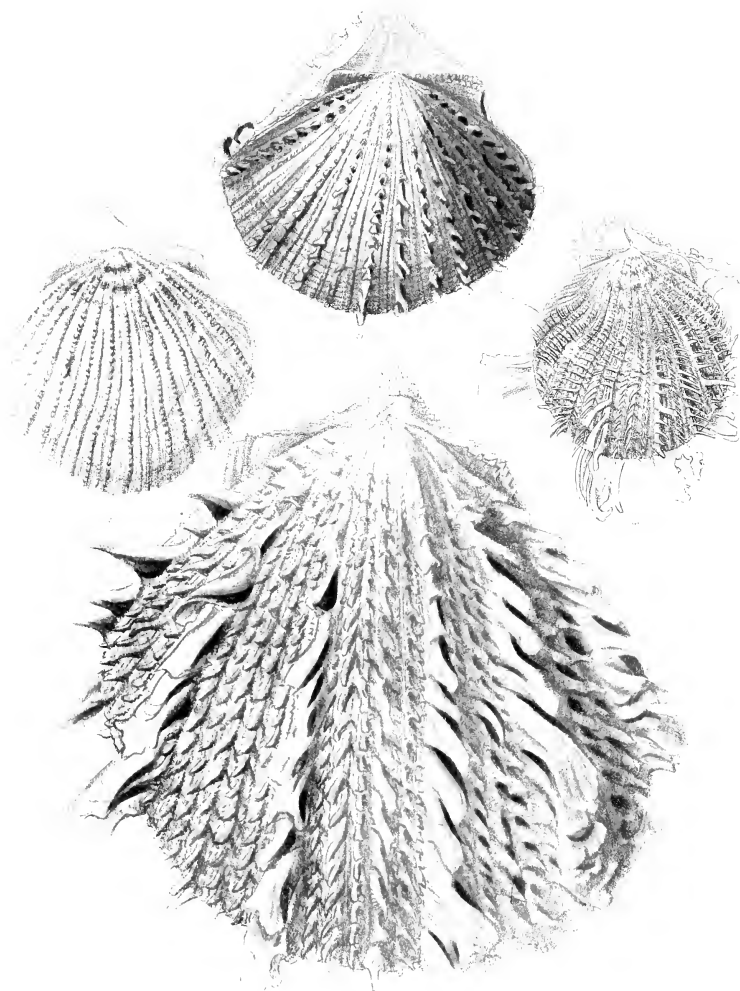
SPONDYLUS REGIUS. *Spaad, testâ ovali, ventricosa, valvis æqualibus, radiata costatis et levitâ, liris acutis, acutatis-squamatis, costis spinis solidis longissimis acutis, acâ cordatis parvâ: purpureo-roseo-roseo spinis interdum allidis.*

THE ROYAL SPONDYLUS. Shell ovate, ventricose, valves equal, radiately ribbed and ridged, ridges minutely prickly scaled, ribs armed with very long solid spines, cardinal area small, purple-rose, spines sometimes whitish.

LINNEUS, Syst. Nat. (12th edition), p. 1136

Hab. Sooloo Islands: Cuming

This fine species, admirably figured by Chemnitz, is of deep ventricose growth, with the valves of equal form and of similar sculpture. It is of a rich purple rose-colour, with the spines sometimes inclining to white.



SPONDYLUS.

PLATE VI.

Species 21. (Mus. Cuming.)

SPONDYLUS FLABELLUM. *Spind. testâ latè trigonâ, flabel-
liformi, sulcus concentrico-planâ, supra radiatâ obscure
lineatâ, liris principalibus peculiariter eulâ brevissimis,
spuriis hic illic plus minus obsoletis, arâ car-
dinali perovulâ: preperascente-rufâ.*

THE LITTLE FAN SPONDYLUS. Shell broadly triangular,
fan-shaped, concavely flattened beneath, radiately
obscurely ridged above, principal ridges peculiarly
rudely short-scaled, scales here and there more or
less obsolete, cardinal area very large: purple-red.

Hab. —?

Characterized in all its stages of development by a pe-
culiar fan-shaped growth, and by a stunted character of
sculpture on the radiating ridges.

Species 22. (Mus. Cuming.)

SPONDYLUS CANDIDUS. *Spind. testâ suborbiculari, rotundè
irregulari, arâ cardinali latiusculâ, radiatâ lineatâ,
liris radians, subflexuosis, gemmato-imbricatis, inter-
sticiis striatis: eandem, caraco-lineatâ, liris interna
viridè roseis.*

THE WHITE SPONDYLUS. Shell somewhat orbicular, very
irregular, cardinal area rather broad, radiately ridged,
ridges rude, rather flexuous, bead-imbricated, inter-
stices striated; white, flesh-tinged, ridges sometimes
bright rose.

LAMARCK, *Anim. sans vert.* vol. vii. p. 155.

Hab. Australia. Lord Hood's Island; Cuming.

The name given to this species, from discoloured speci-
mens, is rather an unfortunate one, the ridges being char-
acterized in fine examples by a particularly bright rose
colour. The ridges, which are of an extremely irregular
flexuous growth, are delicately begemmed throughout
with close-set imbrications.

Species 23. (Mus. Cuming.)

SPONDYLUS TENUS-SPINOSUS. *Spind. testâ orbiculari, sub-
tus convexâ, conspicuè spinosâ et spatulato-spinulatâ,
supra planâ, radiatâ multistriatâ et lineatâ, liris pro-
fusè spinosis, spiniis plerumque videntis, peculiariter
erectis: albâ, eulâ superiori aurantio-roseâ eulâ
lineatâ et maculatâ.*

THE FINE-SPINED SPONDYLUS. Shell orbicular, concave
beneath, conspicuously spined and spatulately scaled,
flat above, radiately many-striated and ridged, ridges
profusely spined, spines generally minute, peculiarly
erect: white, upper valve variously stained and spotted
with orange-rose.

SOWERBY, *Thesaurus Conch.* vol. i. p. 121. pl. 87. f. 37.

Hab. Island of Zebu, Philippines; Cuming.

Covered with a multitude of delicate prickly spines, pecu-
liarily erect in their development.

Species 24. (Mus. Cuming.)

SPONDYLUS PICTORUM. *Spind. testâ trigono-ovata, ra-
diatâ costatâ, costis sex principalibus fortiter lingu-
lato-spinosis, laterciliis sexcostatis, costis parvis, brevis-
spinosis: eulâ aurantio-rufâ.*

THE PAINTERS' SPONDYLUS. Shell triangularly ovate,
radiately ribbed, six principal ribs strongly lingu-
lately spined, interstices six-ribbed, ribs small, short-spined;
bright orange-red.

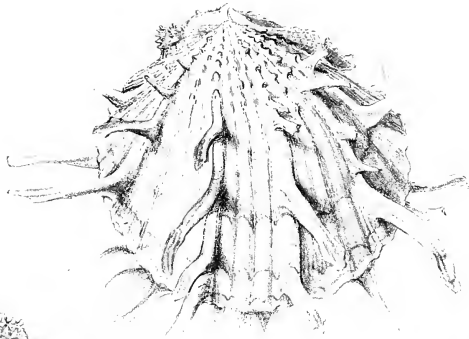
CHEMNITZ, *Conch. Cab.* vol. vii. p. 91. pl. 69. f. E. F.

Spindylus crassispinatus, Lamarck.

Spindylus dubius, Broderip.

Hab. Island of Plata, West Columbia (found attached to
coral rocks at the depth of seventeen fathoms):
Cuming.

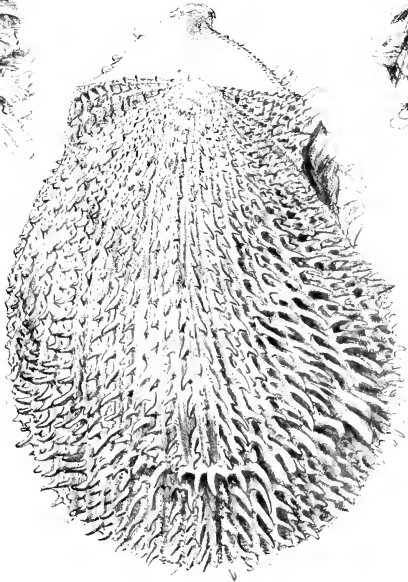
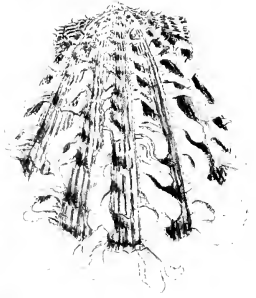
Two very characteristic features in this fine species are
the regularity of its plan of sculpture and its rich orange-
red colour.



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SPONDYLUS.

PLATE VII

Species 25. (Fig. *a, b*, Mus. Cuming.)

SPONDYLUS FOLIACEUS. *Spind. testa orbiculata, radii gibbosa, calvis subaequalibus, radiata costata, costis latis, obtusis, subsuperficialibus, longitudinaliter sulcatis, sex principalibus spinosis, spinis tubercula distinctibus paribus, interdum brevioribus, paleohericis fimbriatis-spatulatis; albida, purpurascens-roseo plus minus circule picta.*

THE FOLIATED SPONDYLUS. Shell orbicular, very gibbous, valves nearly equal, radiate ribs 6, ribs broad, obtuse, somewhat superficial, longitudinally grooved, six principal ribs spinous, spines sometimes distant, very long, sometimes shorter and beautifully fimbriately spatulate; whitish, more or less vividly painted with purple-rose.

CHEMNITZ, *Conch. Cab.* vol. vii. p. 85. pl. 16. f. 472, 473.

Spondylus acillimaculatus, Lamarek.

Spondylus Pictorodanum, Sowerby.

Hab. Philippine Islands; Cuming.

This species, of which a very characteristic figure appears in Chemnitz' (Conchylicæ Cabinet), is finished with large distant spines, sometimes beautifully fimbriately spatulate at the extremity.

Species 26. (Mus. Cuming.)

SPONDYLUS DUCALIS. *Spind. testa triqu岸ovata, calvis subaequalibus, radiata dense serratostriata, costis sex principalibus superficialibus spinosis duplis spatulatis*

confertim regulariter serratis; spinosis albis, stris inter-striatibus carolinævirga lineatis et punctatis.

THE DUCAL SPONDYLUS. Shell triangularly ovate, valves nearly equal, radiately densely serrately striated, six principal ribs superficial, closely regularly armed with large scales; scales white, interstitial striae stained and dotted with blue-black.

CHEMNITZ, *Conch. Cab.* vol. vii. p. 89. pl. 47. f. 474, 475.

Spondylus spatagus, Chemnitz.

Spondylus spatuliferus, Lamarek.

Hab. Philippine Islands; Cuming.

Variable rather in growth, but always distinguished by the contrast of the rays of white scales upon the blue-grey ground of the interstices.

Species 27. (Mus. Cuming.)

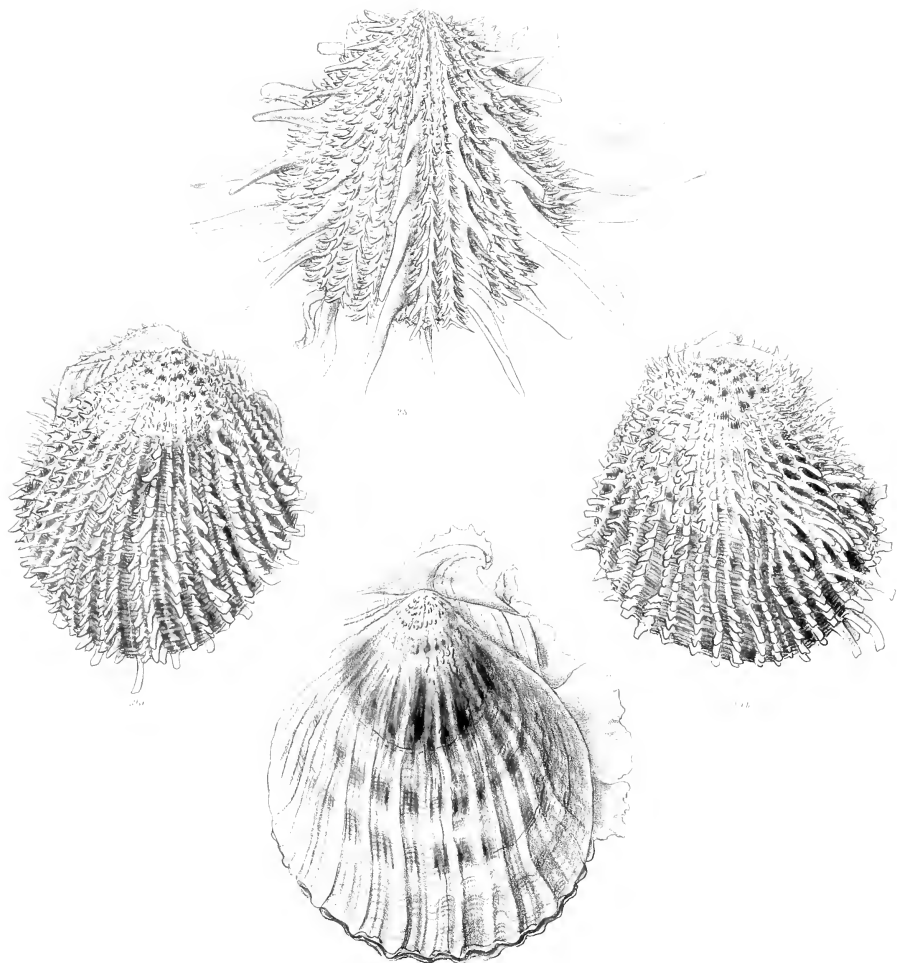
SPONDYLUS LINGUA-PALLIS. *Spind. testa oblongo-ovata, depressoconvexa, spinis parvis hereticis, subsuperficialibus, radique dense aculeatis; foveo-naturalia, circa umbonem tubercula purpurascens-roseo lineata.*

THE CAT'S-TONGUE SPONDYLUS. Shell oblong-ovate, rather depressed, everywhere densely prickled with small short subspiculate spines; brownish-orange, sometimes tinged with purple-rose around the umbo.

SOWERBY, *Pro. Zool. Soc.* 1847

Hab. ———

Curiously distinguished by its flat-spread oblong growth, prickled throughout with small close-set spines.



SPONDYLUS.

PLATE VIII

Species 28* (Mus. Cuming.)

SPONDYLUS IMPERIALIS. *Spind. testâ trigono-ovata, sub-*
compressâ, costis aequalibus, radiatâ creberrimâ,
spinae præcipitibus longissimis, spinis fortibus
pressis, intersitiis tricusatis, costis squamis acutis
dentatis; roseo-roseâ.

THE IMPERIAL SPONDYLUS. Shell triangularly ovate,
rather compressed, valves equal, radiately closely
ribbed, six principal ribs long-spined, spines strong,
appressed, interstices three-ribbed, ribs densely set
with sharp prickly scales; rose-flesh colour.

CHENY, *Conch. Illus.* p. 6, pl. 26, f. 2, 3.
Hab.—China

This very beautiful, but not uncommon species, is very
nearly allied to *S. regius*, and is characterized by the same
plan of sculpture, but the shell is uniformly more com-
pressed, and the prickly scales of the interstitial ribs more
sharply developed.

Species 29 (Fig. a, b. Mus. Cuming.)

SPONDYLUS ZONALIS. *Spind. testâ ovata, valvâ irregu-*
lari, præfere costatâ levatâ, tris plus minus obsoletis
costis flexuosis, levissimâ, squamis irregulariter
dentatis, circa umbonem unguis acutis, albidâ, nigro-
purpuratâ, debite purpureâ aut fusco concentricâ zonatâ,
squamis calcitrâ variatis-latis.

THE ZONED SPONDYLUS. Shell ovate, very irregular,
profusely radiately ridged, ridges more or less obso-

lete, rudely flexuous, short-setten, scales irregularly
prickly, more prickly round the umbo; white, black
spotted, then concentrically zoned with purple or
brown, scales sometimes orange-yellow.

CHENY, *Illus. Conch.* pl. 7, f. 3 and 4.

Spondylus berlianus, Chem.

Hab.—Mauritius, Australia, and Philippine Islands.

Of rude flexuous growth, promiscuously bristled
throughout with irregular short prickly scales.

Species 30. (Mus. Cuming.)

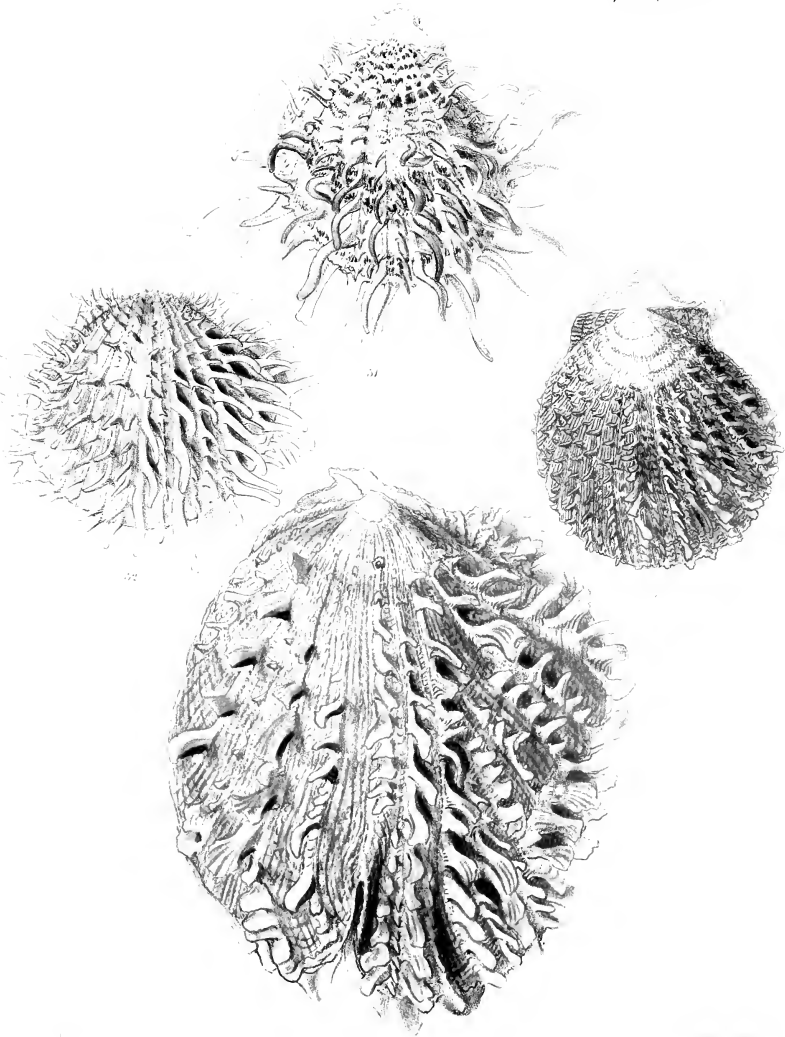
SPONDYLUS LAMARCKII. *Spind. testâ ovata, Pecteniformi,*
regulari, radiatâ costatâ, costis obtusis, substate-
bus, valvâ flexuosis, levibus, acutis parvis purpureis
prope umbonem; caraculæ-ventralibus, purpureo-auratâ,
trabâ tubercum tubercis purpureâ.

LAMARCK'S SPONDYLUS. Shell ovate, Pecten-shaped,
irregular, radiately ribbed, ribs obtuse, rather dis-
tant, rudely flexuous, smooth, with a few small
prickles near the umbo, bluish-white, purple-rayed,
inner lip deep purple.

CHENY, *Conch. Illus.* p. 6, pl. 3, f. 4.

Hab.—?

A very characteristic Pecten-like species, chiefly distin-
guished by its comparatively smooth, widely rayed, flattened
ribs; but liable to be confounded with worn specimens of
S. acutis.



SPONDYLUS.

PLATE IX.

Species 31. (Mus. Cuming.)

SPONDYLUS VIRGINEUS. *Spind. testâ subtriangulo-orbitâ, irregulari, radiatâ lineatâ, stris alternis spinis ciliatis armatis, spinis longiusculis, promissivè incurvis, spinis infra inflexioris fortioribus, longioribus; albidis, ferrugineo-fusca prope marmorâ lineatâ, spinis parvis ciliatis.*

THE MAIDEN SPONDYLUS. Shell somewhat triangularly ovate, irregular, radiately ridged, alternate ridges armed with delicate spines, spines rather long, promissively curved inwards, spines of the under valve stronger and longer; whitish, spotted with rust-brown near the umbo, spines light purple.

Hab. Philippine Islands: Cuming.

A very delicate, white, rust-spotted shell, profusely ornamented with conspicuous gracefully curved pinkish-purple spines.

Species 32. (Mus. Cuming.)

SPONDYLUS ALBIBARBATUS. *Spind. testâ latè orbiculatâ, rotâ superoari gibboso-convexâ, radiatâ multico-statâ, costis superficialibus, spinosis; fusco-cafeseo-rotâ, costis spinisque albis.*

THE WHITE-BEARDED SPONDYLUS. Shell broadly orbicular, upper valve gibbously convex, radiately many-ribbed, ribs superficial, spined—brownish-red, ribs and spines white.

Hab. Philippine Islands: Cuming.

Characterized by a profusion of white spines, protruding from white superficial ribs upon a decided brownish-red ground.

Species 33. (Mus. Cuming.)

SPONDYLUS TENEBROSUS. *Spind. testâ oblongo-orbitâ depressiusculâ, irregulari, radiatâ cupiosè elevatè striatâ, stris ovalatis, sparse squamatis, carceribus fuscis, albipunctatâ, circa marmorâ albidâ.*

THE DUSKY SPONDYLUS. Shell oblong-ovate, rather depressed, irregular, radiately cupiosely elevated striated, striae prickly, sparsely squamate; ash-brown dotted with white, white around the umbo.

Hab. Moreton Bay, Australia: Strange.

Of rather rude growth, beset with short prickles and a few scales. Of a white-speckled ash-brown, white round the umbo.

Species 34. (Mus. Cuming.)

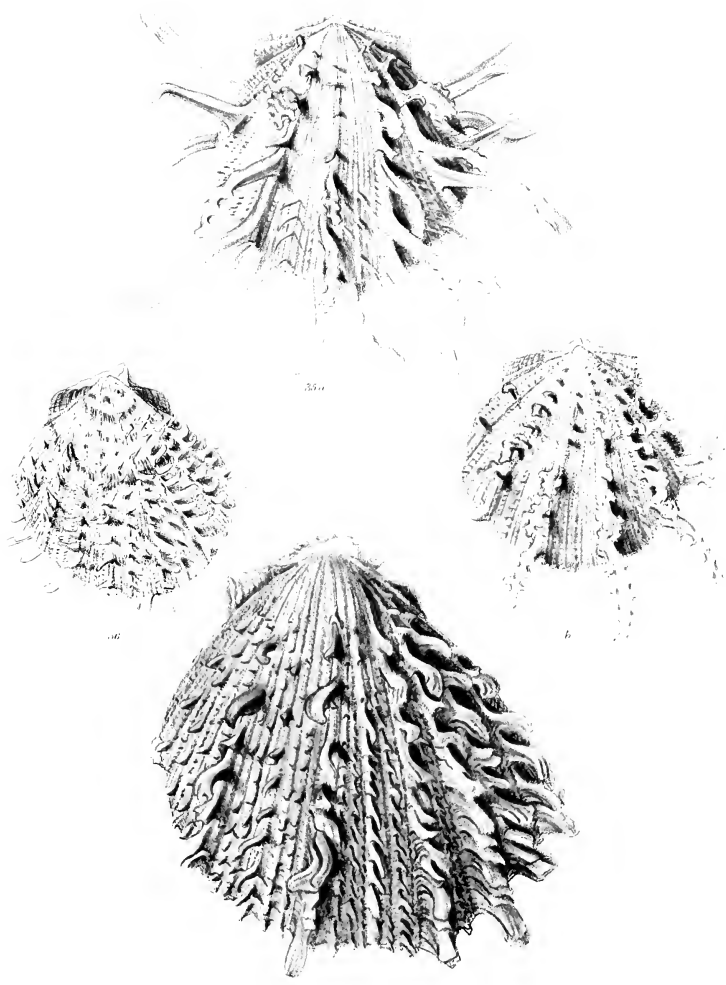
SPONDYLUS LIMBATUS. *Spind. testâ oblongo-orbitâ, orbiculatâ, radiatâ densè striatâ et lineatâ, stris superficialibus densè palmatis-spinosis, spinibus rotatis, ciliatis; intus aurantio-rufo, spinibus subrotatis plus aurantibus, intus aurantio-rufo latè limbatâ.*

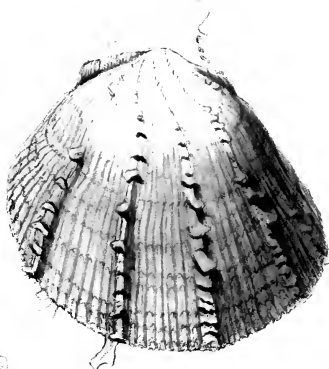
THE BORDERED SPONDYLUS. Shell oblong-ovate irregular, radiately densely striated and ridged, ridges superficial, densely palmately scalded, scales none, irregular; deep orange-red, scales sometimes lighter orange, interior broadly bordered with orange-rose.

SOWERBY, *Thesaurus Conch.* vol. i. p. 427 pl. 88. f. 51.

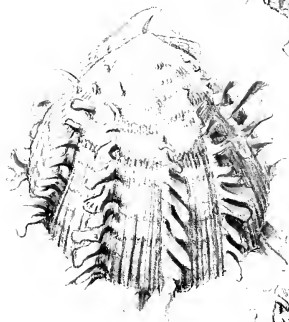
Hab. Panama and Mazatlan.

Chiefly characterized by its orange-red colour, the scales being not infrequently of a lighter colour and by its broad orange-red border in the interior.

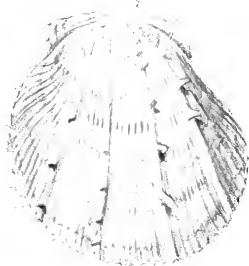




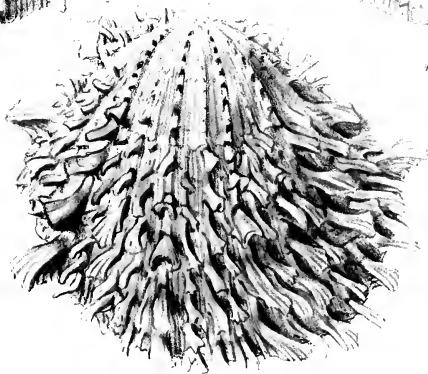
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SPONDYLUS.

PL. PL. XI.

Species 678. (Mus. Cuming.)

SPONDYLUS CILATUS. *Spond. testa sublongiuscula, em-
globata, val. striat. angustioribus. Utriusq. valvæ quatuor
distinctibus striat. costis separatis. Testa livida, livida
rufa, versus umbonam, cærulea.*

THE BRICK-COLOURED SPONDYLUS. Shell somewhat
triangularly ovate, rudely gibbous, radiately super-
ficially ridged, four distinct ridges absolutely obtusely
scaled; deep livid red, scarlet towards the umbo.

Hab. Guadeloupe.

A rude gibbous species, of a deep livid purplish-red
almost divided sculpture beyond the traces of four rows
of obtuse worn scales.

Species 679. (Mus. Cuming.)

SPONDYLUS TRINACEUS. *Spond. testa gibboso-globosa,
subaquarata, radiata truncata, livis crenulato-
costis quinque principalibus in utraque valvæ, spina
erectis palmatis irregularibus deorsu. unguis; refri-
centibus-cæruleis, spinosis subviride rufis.*

THE RED-ROOF SPONDYLUS. Shell gibbously globos-
nearly equivalve, radiately finely ridged, ridges crenu-
lated, with five principal ribs in both valves, beset
with irregular erect palmate scales; ridges yellow,
scales darker red.

Hab. West Indies.

A nearly equivalve shell, of a peculiar reddish-saffron
colour, characterized on both sides with five rows of erect
reddish scales.

Species 680. (Mus. Cuming.)

SPONDYLUS ICTERICUS. *Spond. testa subquadrata, 2/3 (testa
inf. riori valvæ convexa, sept. emata subquadrata, val. sup.
livida striata, livis quatuor principalibus subultra, dens,
spuriis separatis; cæruleo-rufis, ad umbonam arenulata.*

THE JAUNDICED SPONDYLUS. Shell oblong-ovate, lower
valve deeply convex, upper valve nearly flat, radiately
finely ridged, four principal ridges rather distant
sparsely scaled; yellowish-red, spotted at the umbo.

Hab. Bermuda.

Of a peculiar gauboge-red colour, with little indication
of sculpture.

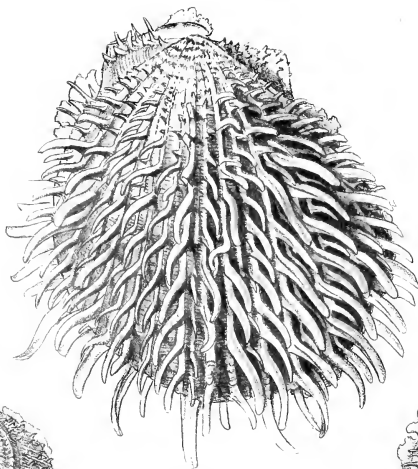
Species 681. (Mus. Cuming.)

SPONDYLUS BASILEUS. *Spond. testa suborbiculari, sub-
depressa, costis superioribus convexis, cæruleis livida et
striata, spinosis fronsibus profuse ornatis; ulcosi pur-
pureo-roseo-rufis.*

THE PRINCELY SPONDYLUS. Shell suborbicular, rather
depressed, upper valve convex, radiately ridged and
striated, profusely beset with frondose scales; deep
purple-red.

Hab. ———?

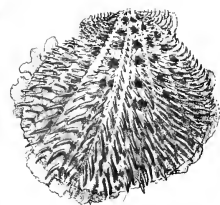
This shell, which was considered to be a variety of *S.
princeps*, is well characterized by its depressly convex
growth, and by the peculiar frondose development of the
spines.



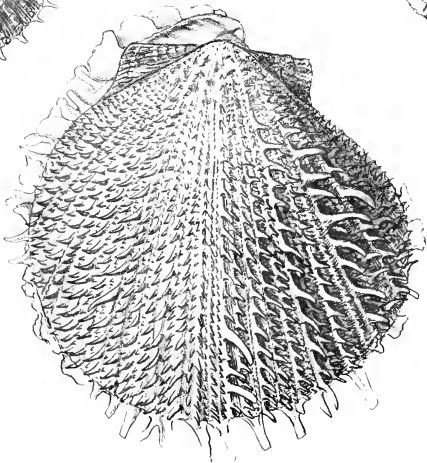
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SPONDYLUS.

PLATE XII.

Species 42. (Mus. Cuming.)

SPONDYLUS HYSIRIX. *Spind. testâ ovatâ, radiatâ lirate et striatâ, spinis curvatis longiusculis nudiqve dense auriculâ; purpurascens-oculata, ad umbonem subumbatâ.*

THE PORCUPINE SPONDYLUS. Shell ovate, radiately ridged and striated, densely prickled throughout with rather long curved spines; purplish flesh-colour, slightly mottled at the umbo.

Hab. Philippine Islands; Cuming.

Armed as profusely with rather long curved spines as *S. unrotatus*, but uniformly distinguished amongst other characters by its peculiar purple flesh-colour.

Species 43. (Mus. Cuming.)

SPONDYLUS OCELLATUS. *Spind. testâ obliquè ovatâ, calidâ superiorem planiusculâ, radiatâ multistriatâ, striis nudiqve acutè auriculâ; albâ, versis marginem rufescentè-auriculâ, prope umbonem ferruginè-nigra ocellatâ.*

THE EYED SPONDYLUS. Shell obliquely ovate, upper valve rather flat, radiately many-striated, striae everywhere sharply prickled; white, reddish-ash towards the margin, ocellated with rusty-black near the umbo.

Hab. Philippine Islands; Cuming.

Of rather oblique growth, delicately sculptured throughout with sharp erect prickles.

Species 44. (Mus. Cuming.)

SPONDYLUS COCCINEUS. *Spind. testâ obliquè orbiculatâ, levaniculâ, radiatâ levanitratâ et striatâ, nudiqve profusè auriculâ; albâ, versis marginem purpureo-purpurascens-oculata, ad umbonem auriculis conspicuè radiatâ.*

THE CRIMSON-DYED SPONDYLUS. Shell obliquely orbicular, rather thin, radiately finely ridged and striated, everywhere profusely prickled, white, stained with crimson-purple towards the margin, conspicuously rayed with spots from the umbo.

LAMARCK, *Anim. sans. vert.* vol. vii. p. 158.

Hab. Philippine Islands; Cuming.

A delicately prickled species, chiefly characterized by its purple-stained and rayed painting.

Species 45. (Mus. Cuming.)

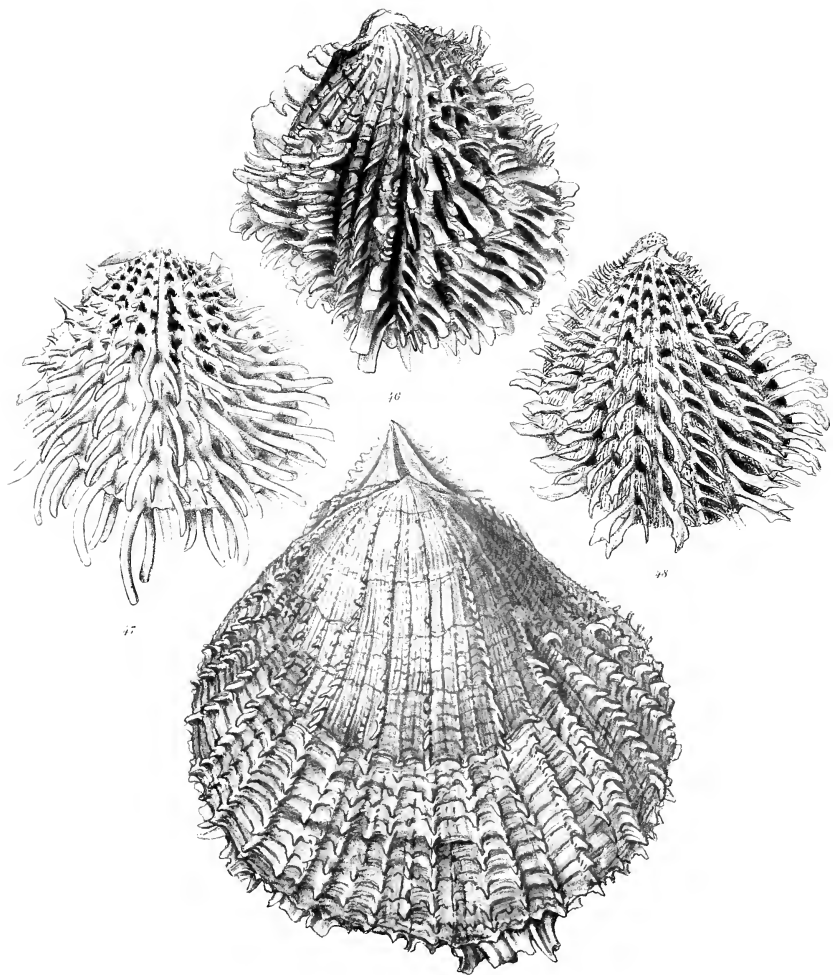
SPONDYLUS ASPERRIMUS. *Spind. testâ triangulo-orulatâ, planiusculâ, dense radiatâ lirate, liris nudiqve acutatis; caracâ-fuscâ, albâ, rufescentulatâ prope umbonem, aculeis interdentâ albidis.*

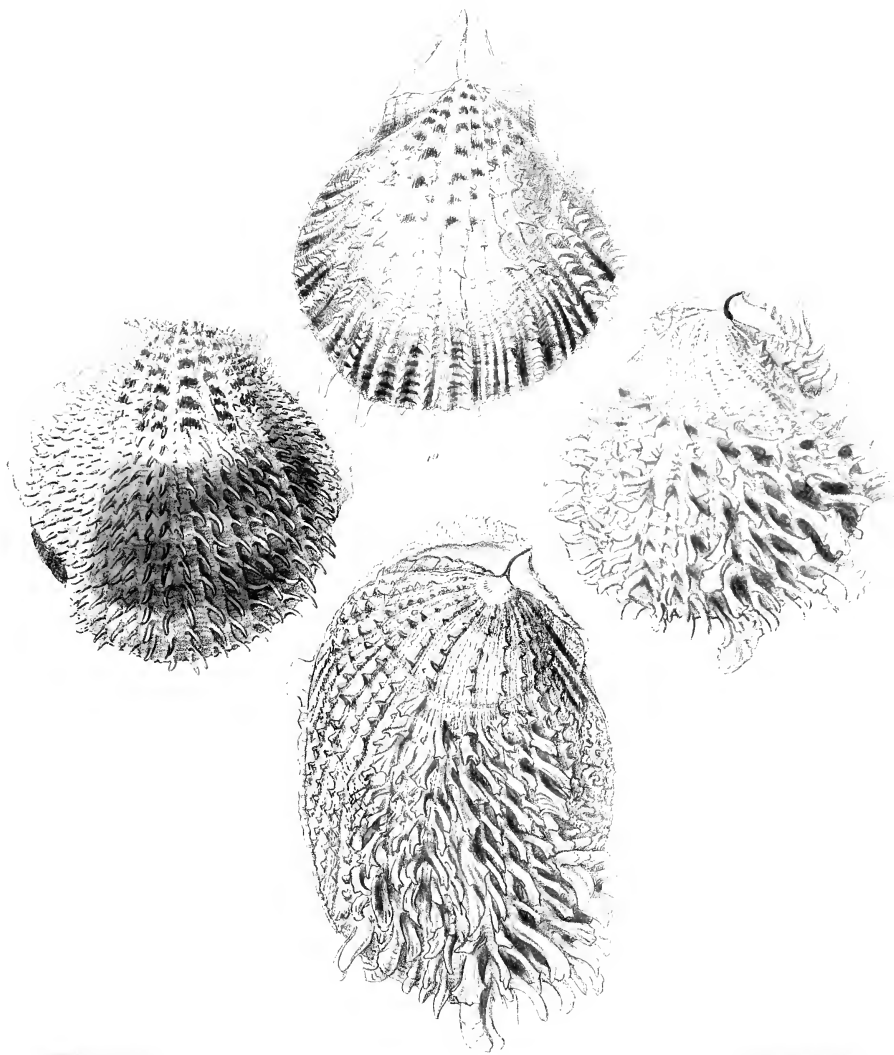
THE VERY ROUGH SPONDYLUS. Shell triangularly ovate, flatly convex, densely radiately ridged, ridges everywhere sharply prickled; flesh-brown, white, spotted with red next the umbo, prickles sometimes whitish.

SOWERBY, *Pro. Zool. Soc.* 1847, p. 87.

Hab. Philippine Islands; Cuming.

Very closely finely ridged throughout, the ridges being copiously beset with sharp prickles.





SPONDYLUS.

PLATE XIV.

Species 49. (Mus. Cuming.)

SPONDYLUS SPECTRUM. *Spind, testâ trigono-oratâ, iri-
gulari, radiatâ leviter striatâ, liris umbis brevibus an-
gulis prominens arcuatis, albis, coxis antiqua
râseâ inter liras, circa marginem nigra maculata.*

FIGURE SPONDYLUS. Shell triangularly ovate, ir-
regular, radiately finely ridged, ridges prominently
armed with short angular prickles, white, brown
towards the margin between the ridges, spotted with
black around the umbil.

Hab. Philippine Islands; Cuming.

Of a rude triangularly ovate form, rayed with fine
ridges, beset throughout with short angular prickles,
which towards the margins become more dense and ap-
pressed one upon the other.

Species 50. (Mus. Cuming.)

SPONDYLUS NICOBARICUS. *Spind, testâ ovata, convexa
depressa, radiatâ striatâ, umbis brevibus undique es-
tantâ; albis, porporaceo-fusca partem inter, creta ma-
gnum umbilicis porporaceo-iris radiatâ.*

FIGURE NICOBAR SPONDYLUS. Shell ovate, convexly de-
pressed, radiately striated, beset throughout with
erect prickles; white, partially stained with purple-
brown, rayed with purple-black spots round the
umbil.

CHEMNITZ, Conch. Cab. vol. VII. pl. 45. f. 169, 170.

Hab. Philippine Islands; Cuming

Covered throughout with short erect prickles, and
rayed in a characteristic manner with purple-black spots.

Species 51. (Mus. Cuming.)

SPONDYLUS RAMOSUS. *Spind, testâ ovatâ, subdepressa,
subirregulari, radiatâ leviter striatâ, liris spinis ramosis
arcuatis, siciliâ convexo-umbilicâ.*

FIGURE BRANCHED SPONDYLUS. Shell ovate, rather de-
pressed, somewhat irregular, radiately finely ridged,
ridges ornamented with branched spines; bright
saffron-orange.

Hab. West Indies.

Chiefly distinguished by the elegantly branched growth
of most of the spines.

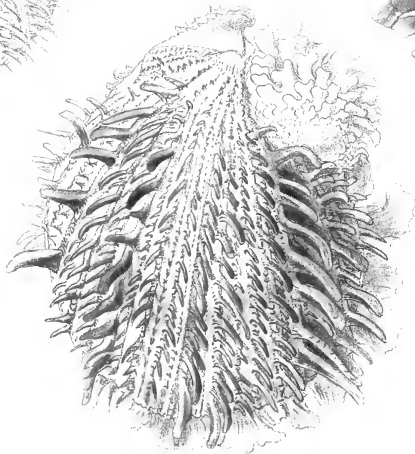
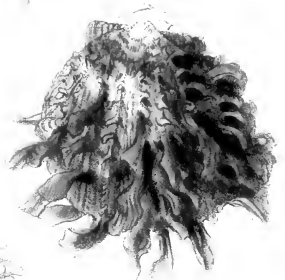
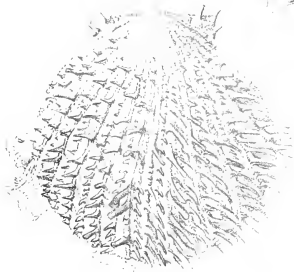
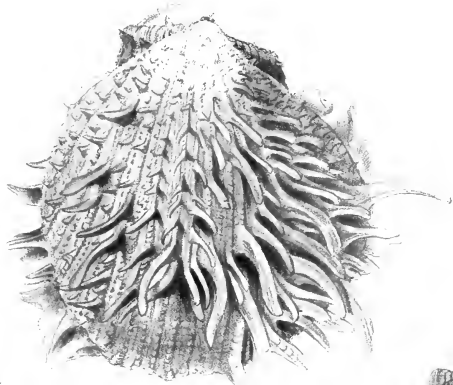
Species 52. (Mus. Cuming.)

SPONDYLUS RADULA. *Spind, testâ ovata, radiatâ levi-
ter striatâ, liris subultrastriatis, intersitiis striatis, densi
prominentibus ramoso-spinosâ; convexo-umbilicâ, porporaceo
fusa plus minus lineatâ.*

FIGURE RASP SPONDYLUS. Shell ovate, radiately finely
ridged, ridges rather distant, striated in the inter-
stices, densely prominently branch-spined; flesh
white, more or less stained with purple-red.

Hab. Tehuantepec, West Mexico; Captain Dare.

The leading characteristic feature of this species is a
dense promiscuous covering of spines, some small and
prickly, others palmately branched.



SPONDYLUS.

PLATE XV

Species 53. (Mus. Cuming.)

SPONDYLUS SETIGER. *Spond. testâ orbata, convexo-oblata, pressâ, radiatâ lobatâ, liris breviter spinosis, spinis aut irregularibus, subaequalibus et spinosis, rufâ. Costâ, area carinata, et foveâ, subconcentricâ.*

THE BRISTLED SPONDYLUS. Shell orbate, convexly depressed, radiately ridged, ridges strongly lobed, very irregular, spines irregular, subequal, concentrically, ruddy brown, white, black, pink, blue, the umbil.

Hab. Philippine Islands.

Of a peculiar ruddy brown colour, ornamented with strong very irregular spines, ragged, somewhat concentrically.

Species 54. (Mus. Cuming.)

SPONDYLUS ELEGANS. *Spond. testâ orbato-ovata, convexo-oblata, pressâ, radiatâ lobatâ, liris breviter spinosis, spinis aut irregularibus, subaequalibus, rufâ. Costâ, area carinata, et foveâ, subconcentricâ.*

THE AMBER SPONDYLUS. Shell suborbicular, convexly depressed, radiately finely ridged and striated, ridges prickly spined, spines numerous, small; reddish-orange, spines darker in colour.

Hab. West Indies.

A delicate, convexly depressed, oblique spines, rays

with very fine ridges of small prickly spines, the whole being of a semitransparent amber-orange colour.

Species 55. (Mus. Cuming.)

SPONDYLUS IMBUTUS. *Spond. testâ suborbiculari, irregulari, rufâ striatâ, radiâ aculeatâ et spinatâ, spinosis palustro-sinuosis, depressâ curvatis; intensè purpureo-rufo.*

THE DYED SPONDYLUS. Shell suborbicular, irregular, scarcely striated, rudely prickled and scaled, sub-palmately branched, depressly curved; deep purple-red.

Hab. — ?

A shell of somewhat rude growth, of a deep burnt-red colour, armed with a few fine prickles and palmately branched scales, depressly bent forwards.

Species 56. (Mus. Cuming.)

SPONDYLUS CUNEUS. *Spond. testâ oblongo-ovata, radiatâ lobatâ et striatâ, liris subconfertis, irregularibus, spinis breviter spinosis; purpureo-rufo.*

THE WEDGE SPONDYLUS. Shell oblong-ovate, radiately ridged and striated, ridges rather close-set, irregular prominently spined throughout; purple-red.

Hab. West Indies.

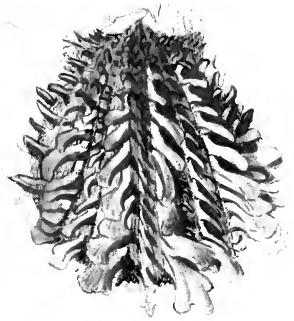
Of a characteristic purple-red colour, beset rather closely with irregularly spined ridges.



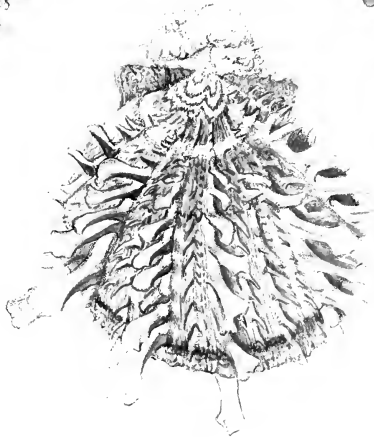
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37.



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39.

SPONDYLUS.

PLATE XVI

Fig. 28 b. (Mus. Cuning.)

The very elegant shell here represented is a white variety of *S. imperialis*, in which the spines are unusually elongated.

Species 57. (Mus. Cuning.)

SPONDYLUS VIOLACEUS. *Spind. testâ subtriangulo-ovata solidiusculâ, gibbosâ, radiatim lirata et striata, iris spinis brevibus fortibus subdistantibus armatis; albidâ, purpurascente-violaceo plus minus tinctâ.*

THE VIOLET SPONDYLUS. Shell somewhat triangularly ovate, rather solid, gibbous, radiately ridged and striated, ridges armed with short strong rather distant spines; whitish, more or less tinged with purple-violet.

Hab. — ?

A rather solid gibbous Pecten-shaped shell, armed at distant intervals with spines, peculiarly short and strong.

Species 58. (Mus. Cuning.)

SPONDYLUS COSTATUS. *Spind. testâ ovata, dense radiatim lirata, iris principibus plano-spathulatis, squamis spathulatis, numerosis, regularibus, iris intercedis tenuissimis; intusâ costulato-rubidâ, infra squamas albâ.*

THE BURNT SPONDYLUS. Shell ovate, densely radiately ridged, the principal ridges flatly scaled, scales spatulate, numerous, regular, intermediate ridges finely spined; rich burnt-red, white beneath the scales.

Hab. Bermudas.

Chiefly distinguished by its regular rows of flat spatulate scales, the shell being of a rich burnt-red colour, except at the root of the scales, where it is white.

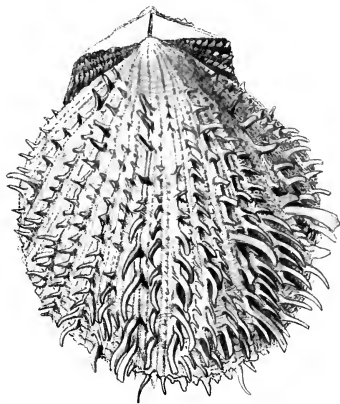
Species 59. (Mus. Cuning.)

SPONDYLUS VEXILLUM. *Spind. testâ subtriangulo-ovata, planiusculâ, radiatim lirata, iris distantibus, squamis spathulatis armatis, interstitiis tenuistriatis, sparsim spinosis; rufescente-spathulati, sanguineo circa umbonem maculata.*

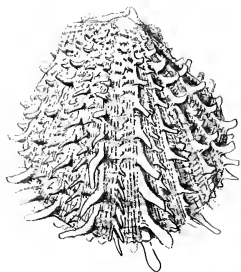
THE FLAG SPONDYLUS. Shell somewhat triangularly ovate, rather flat, radiately ridged, ridges distant, armed with spatulate scales, interstices finely striated, sparsely spined; reddish-fawn, waved with blood-red round the umbo.

Hab. Bermudas.

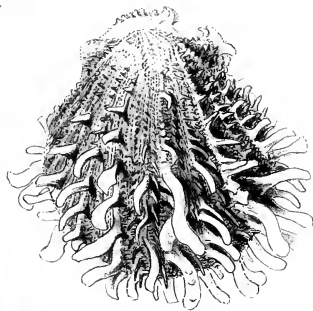
Of a peculiar reddish-fawn tint of colour, rayed with distant rows of spatulate scales, the interstices between which are loosely set with prickly spines.



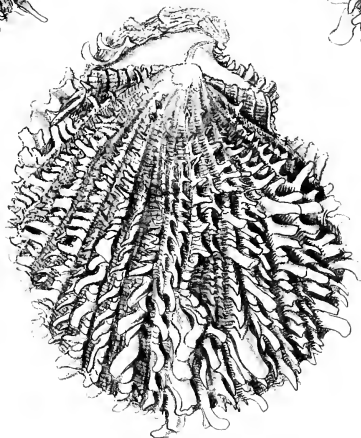
65.



66.



67.



68.

SPONDYLUS.

PLATE XVII.

Species 60. (Mus. Cuming.)

SPONDYLUS RUBRUNDUS. *Spond. testâ oblongo-ovata, radiatim levissimâ, liris subnudibus, acutè spinosis, spinis valdè irregularibus, breviusculis, curvatis; viculis coccineo-rubris.*

THE ROUGHED SPONDYLUS. Shell oblong-ovate, radiately finely ridged, ridges somewhat rude, sharply spined, spines very irregular, rather short, curved; bright crimson red.

Hab. Philippine Islands.

Characterized by an oblong-ovate form, crowded with rather small rude ridges, sparsely furnished with short irregular curved spines.

Species 61. (Mus. Cuming.)

SPONDYLUS FRAGUS. *Spond. testâ ovata, pectiniformi, radiatim lirata et striata, liris spinosis, spinis fortibus, suberectis, striis eximie muricatis; fuscescenti-roseâ, versu umboneâ albidâ, nigro coccineoque punctatâ, spinis et aculeis albis.*

THE STRAWBERRY SPONDYLUS. Shell ovate, pecten-shaped, radiately ridged and striated, ridges spined, spines strong, rather erect, striae delicately prickled; brownish rose, whitish towards the umbo, dotted with black and scarlet, spines and prickles white.

Hab. Philippine Islands.

Distinguished by a peculiar tone and pattern of colouring, rayed with alternate rows of white spines and prickles.

Species 62. (Mus. Cuming.)

SPONDYLUS AFFINIS. *Spond. testâ subtriangulo-ovata, radiatim costatâ, costis subululatis, squamis longiusculis, proxiisè contractis, straculis, interstitiis quinqueviciatim muricatis; fuscescenti-purpureâ, circa umbonem roseo punctatâ, squamis albis.*

THE ALLIED SPONDYLUS. Shell somewhat triangularly ovate, radiately ribbed, ribs rather distant, armed with rather long prominently twisted scales, interstices with five rows of prickles; brownish-purple dotted with rose about the umbo, scales white.

Hab. Philippine Islands.

This species has very much the appearance of *S. albobarbatas*, the scales being similarly white upon a dark ground, which in the present species has a more purple tone, while the umbo is rose-spotted. The chief difference is in the more rarely angular form of this shell.

Species 63. (Mus. Cuming.)

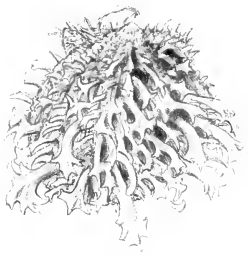
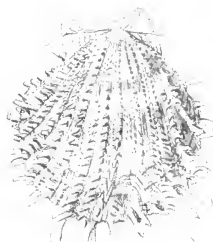
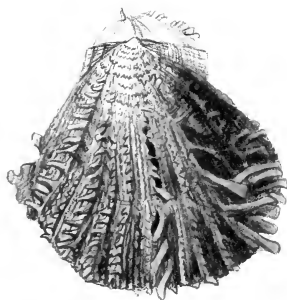
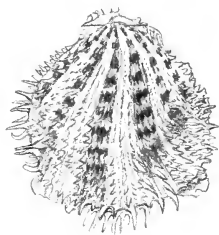
SPONDYLUS ACULEATUS. *Spond. testâ oblongo-ovata, costâ irregulari, radiatim levissimâ, squamis cordibus dense obsitâ; purpuraceo-roseo-rubra, squamis albis.*

THE PRICKLY SPONDYLUS. Shell oblong-ovate, very irregular, radiately finely striated, densely beset with rude scales; purple-red, scales white.

CHEMNITZ, Conch. Cab. vol. vii. p. 74. pl. 44. f. 160

Hab. — ?

Mr. Sowerby refers the shell here represented to the above-cited figure of Chemnitz, but it does not agree with it satisfactorily.



SPONDYLUS.

PLATE XVIII.

Fig. 2. Ho. (Mus. Cuming.)

A variety of *S. coccineus*, showing the purple-rayed denting and prickly margin.

Species 64. (Mus. Cuming.)

SPONDYLUS NUX. *Spoud. testâ subglobosâ, quinqueliratâ et striatâ, liris squamatis, squamis latè ramosè spathulatis et furcatis; saturatè corallo-rubrâ.*

THE NET SPONDYLUS. Shell subglobose, five-ridged and striated, ridges scaled, scales broadly ramously spatulate and vaulted; deep coral-red.

Fig. 1. —?

A small dark coral-red species, in which the scales, few in number, are broadly ramously spatulate and elegantly vaulted.

Species 65. (Fig. a, Mus. Cuming; fig. b, Mus. Hailey.)

SPONDYLUS MICROLEPOS. *Spoud. testâ ovatâ, irregulari, radiatim liriatâ et striatâ, liris striisque geminis, cassis marginica rursè brevisquamatis; viridè corallo-rubrâ.*

THE SMALL-SCALED SPONDYLUS. Shell ovate, irregular, radiately ridged and striated, ridges and striae beaded, bluntly short-scaled towards the margin; bright coral-red.

CAMARCK, Anim. sans vert. vol. vii. p. 190.
Hab. China.

The radiating ridges and striae of this species are distinguished by a peculiar short-scaled blunt headed sculpture, which differs from that of all other species of the genus.

Species 66. (Mus. Cuming.)

SPONDYLUS LAYARDI. *Spoud. testâ trigono-ovatâ, irregu-*

laris-squamatâ; rufosè purpurâ, cassis umbonem albâ.

LAYARD'S SPONDYLUS. Shell triangularly ovate, irregular, radiately densely striated, scarcely ridged, sparsely prickly scaled; dark purple, whitish towards the umbo.

Hab. Ceylon.

A dark purple species, of rather thin substance and irregular growth, densely striated and sparsely prickly scaled.

Species 67. (Mus. Cuming.)

SPONDYLUS TENELLUS. *Spoud. testâ ovatâ, radiatim tenuicatâ, interstitiis minutè striatis, liris crinâti brevisquamatis; coccineo-rufrâ, squamis pallidis.*

THE DELICATE SPONDYLUS. Shell ovate, finely radiately ridged, the interstices minutely striated, ridges delicately shortly scaled; scarlet-rose, scales pale.

Hab. —?

The sculpture of this species is of a characteristic minute pattern, and the colouring of almost transparent delicacy.

Species 68. (Mus. Cuming.)

SPONDYLUS DIGITATUS. *Spoud. testâ latè ovatâ, radiatim liriatâ, liris uncinis lunatis et squamis peculiariter trifurcatim ramosè densè obsitis; auratio-rufrâ, squamis interdum latè-fucatis.*

THE FINGERED SPONDYLUS. Shell broadly ovate, radiately ridged, ridges densely beset with fine prickles and peculiarly three-forked branched scales; orange-red, scales sometimes tinged with yellow.

OWERBY, Pro. Zool. Soc. 1847, p. 57.

Hab. Bermudas; Beleher.

Remarkably distinguished from all other species of the genus by the pretty three-forked termination of the scales

SPONDYLUS.

	Plate	Species		Plate
aculeatus, <i>Chemnitz</i>	XVII	63	limbatus, <i>Sowerby</i>	IX. 31
affinis, <i>Reeve</i>	XVII.	62	linguifilis, <i>Sowerby</i>	VII. 27
albaribartus, <i>Reeve</i>	IX.	32	longispinus, <i>Lamarck</i>	IV. 17
albidus, <i>Broderip</i>	I.	5	longitudinalis, <i>Lamarck</i>	XIII. 16
Americanus, <i>Lamarck</i>	IV.	17	microlepis, <i>Lamarck</i>	XVIII. 65
ana Spathis, <i>Lamarck</i>	IV.	17	obliquus, <i>Chemnitz</i>	I. 5
asprinus, <i>Sowerby</i>	XII.	45	orbiculatus, <i>Chenu</i>	XIII. 46
aurantius, <i>Lamarck</i>	III.	10	orbiculatus, <i>Lamarck</i>	VII. 25
acicularis, <i>Lamarck</i>	IV.	17	multinerviatus, <i>Reeve</i>	IV. 15
barbatus, <i>Reeve</i>	IV	16	multisetosus, <i>Reeve</i>	III. 11
basilius, <i>Reeve</i>	XI.	11	nervosus, <i>Chemnitz</i>	II. 8
Butleri, <i>Reeve</i>	IV.	14	nus, <i>Reeve</i>	III. 12
canarus, <i>Reeve</i>	X.	36	Nicolariensis, <i>Chemnitz</i>	XIV. 50
caudatus, <i>Lamarck</i>	VI.	22	nudus, <i>Chemnitz</i>	I. 2
caustus, <i>Reeve</i>	XIII.	47	oax, <i>Reeve</i>	XVIII. 64
ciliatus, <i>Broderip</i>	I.	4	ocellatus, <i>Reeve</i>	XII. 43
coeruleus, <i>Lamarck</i>	XII.	14	Pacificus, <i>Reeve</i>	I. 1
rossisquamatus, <i>Lamarck</i>	VI.	24	Pezos hians, <i>Sowerby</i>	VII. 25
croceus, <i>Chemnitz</i>	V.	19	pictorum, <i>Chemnitz</i>	VI. 24
Gunningii, <i>Sowerby</i>	X.	35	pluri-spinosus, <i>Reeve</i>	V. 18
genuus, <i>Reeve</i>	XV.	56	princeps, <i>Broderip</i>	II. 9
Hessertii, <i>Chenu</i>	I.	3	radula, <i>Reeve</i>	XIV. 52
digitatus, <i>Sowerby</i>	XVIII	68	ramosus, <i>Reeve</i>	XIV. 51
Dubius, <i>Broderip</i>	VI.	24	regius, <i>Linnaeus</i>	V. 20
ducalis, <i>Chemnitz</i>	VII.	26	rubicundus, <i>Reeve</i>	XVII. 60
electrum, <i>Reeve</i>	XV.	54	setiger, <i>Reeve</i>	XV. 53
eriaceus, <i>Reeve</i>	XI.	39	Siemensis, <i>Sowerby</i>	II. 7
fabellum, <i>Reeve</i>	VI.	21	spoliatus, <i>Chemnitz</i>	VII. 26
foliaceus, <i>Chemnitz</i>	VII.	25	spatuliferus, <i>Lamarck</i>	VII. 26
fragilis, <i>Sowerby</i>	XIII.	48	spectrum, <i>Reeve</i>	XIV. 49
fragula, <i>Reeve</i>	XVII.	61	tenebrosus, <i>Reeve</i>	IX. 33
gilvus, <i>Reeve</i>	XI.	38	tenuellus, <i>Reeve</i>	XVIII. 67
Gussoni, <i>Costa</i>	I.	5	tenuispinosus, <i>Sowerby</i>	VI. 23
gedaropus, <i>Linnaeus</i>	III.	13	unicolor, <i>Sowerby</i>	X. 37
hermannus, <i>Chenu</i>	VIII	29	ustulatus, <i>Reeve</i>	XVI. 58
hy-trix, <i>Reeve</i>	XII.	42	varians, <i>Sowerby</i>	I. 3
ictericus, <i>Reeve</i>	XI.	40	variegatus, <i>Chemnitz</i>	II. 8
imbutus, <i>Reeve</i>	XV.	55	vexillum, <i>Reeve</i>	XVI. 59
imperialis, <i>Chenu</i>	VIII.	28	violaceus, <i>Reeve</i>	XVI. 57
Lamarckii, <i>Chenu</i>	VIII.	30	virginicus, <i>Reeve</i>	IX. 31
Layardi, <i>Reeve</i>	XVIII.	66	zonalis, <i>Chenu</i>	VIII. 29
leucacantha, <i>Broderip</i>	II.	6		

MONOGRAPH
OF THE GENUS
NERITINA.

BY
J. G. COOPER, M.D.



1a



2a



2b



3a



4a



4b



5a



6a



6b



7a

NERITINA.

PLATE I.

Genus NERITINA, *Linnaeus*.

Testa subglobosa, epidermide olivaceo-plumbeaque induta, spirâ parvâ, laterali, raro evasenti; anfractibus univ. lacinias, arae spirâs convexitas; arae columellari planâ, saepe perianthi, ut origine integrâ; apertura semicirculari, labro plus minus diffusâ, lateralia utriusque dilatata. Operculum testaceum, semiorbitatum, appendice laterali aperturâ instructum.

Shell subglobose, generally covered with an olive epidermis, spire small, lateral, seldom exerted; whorls sometimes smooth, sometimes coronated. Columellar area flat, often rather large, entire at the margin; aperture semicircular, lip more or less diffused, sometimes dilated on both sides. Operculum testaceous, semiorbitate, furnished with a sharp lateral piece.

The *Neritinae*, or Freshwater Nerites, are distinguished from the *Nerite* proper, or Marine Nerites, chiefly by their more gloomy aspect, thinner substance, and absence of sculpture and of columellar teeth: there are, nevertheless, some species of extremely brilliant colouring, and some characterized by a conspicuous variously developed crown of spines. Considerable attention has been given to this genus by M. Recluz, and by Mr. G. B. Sowerby, jun., both in his "Conchological Illustrations" and in his "Thesaurus Conchyliorum," but the additions made to the species from various sources during the last five years by Mr. Cuming, have increased the number one-half, and rendered a further monograph desirable.

The *Neritinae* are chiefly inhabitants of the Old World, ranging from our own continent and islands through the islands of the Pacific and Eastern Seas to Australia and New Zealand. In the New hemisphere the genus is represented mainly in the streams of the West Indies and Central America.

Species I. (Fig. *a, b*, Mus. Cuming.)

NERITINA CANALIS. *Ner. testâ oblongo-oratâ, subtus convexo-depressâ, spirâ parvâ, ferè occultâ, anfractibus univ. convexis, angustis, arae columellari perianthi, ad latera canaliculatâ; corallo-viridi. arae columellari sanguineo lineatâ.*

THE CHANNELLED NERITINA. Shell oblong ovate, convexly depressed beneath, spire small, almost hidden, whorls convex, narrow, columellar area very large, channelled at the side: blue-black, columellar area blood-stained.

SOWERBY, Tankerville Catalogue, p. 41, no. 1094.

Hab. Tahiti (on stones in a rivulet); Cuming.

Of a compressly expanded form, with a very large columellar area more or less stained with blood-red.

Species 2. (Fig. *a, b*, Mus. Cuming.)

NERITINA OLIVACEA. *Ner. testâ oblongo-oratâ, subglobosâ, solidâ, spirâ convexo-planâ, ferè obsolete, anfractibus rotundatis, promissis concentricè striatis, arae columellari latiusculâ, declivi, sabulosis; sordide olivaceâ, arae columellari carnelescente-albâ.*

THE OLIVE NERITINA. Shell oblong ovate, rather gibbous, solid, spire convexly flattened, almost obsolete, whorls rounded, promissively concentrically striated, columellar area rather broad, slanting, somewhat callous; dark olive, columellar area bluish-white.

LE GULLOU, *Revue Zool. Cuvierienne*, 1841, p. 344.

Nerita solida, Recluz.

Hab. Island of Luzon, Philippines (on stones in a rapid river); Cuming.

Chiefly distinguished by its gibbous, solid, oblong form, the spire being almost obsolete.

Species 3. (Fig. *a, b*, Mus. Cuming.)

NERITINA LARIOSA. *Ner. testâ ovato-globosâ, spirâ parvâ, impressâ, anfractibus convexis, rugoso-striatis, prope spiram contractis, rorsus apertura rotundato-expansis, arae columellari amplâ, latè excavatâ; olivaceo-ciridi, lineis et maculis nigris pictâ, intus sanguineo lineatâ.*

THE FULL-LIPPED NERITINA. Shell ovately globose, spire small, impressed, whorls convex, roughly striated, contracted near the spire, towards the aperture rotundately expanded, columellar area large, broadly excavated: olive-green, painted with black lines and spots, interior tinged with blood-red.

SOWERBY, *Conch. Illustrations*, f. 48.

Hab. Island of Luzon, Philippines (on stones in a rapid river); Cuming.

This fine species, first collected in the Philippine Islands by Mr. Cuming, is chiefly distinguished by its bold circularly expanded aperture.

Species 4. (Fig. 7, 8, Mus. Cuming.)

NERITINA SQUAMATA. *Ner. testâ oblongo-ovata, sub-*
tus concentricis-ruptis, solidâ, spirâ ferè obsolete, anfrac-
tibus convexis, concentricè flexuose striatis, super-
ioriter impressis, area columellari ampla, ad latus
columnellatâ; olivaceo-luteâ, nigra leavi reticulata
obscurè fuscata.

THE SCALE-PAINTED NERITINA. Shell oblong-ovate,
concavely expanded beneath, solid, spire almost obso-
lete, whorls convex, concentrically flexuously striated,
faintly impressed round the upper part, columellar
area large, channelled at the side; olive-yellow, finely
reticulated with black, obscurely banded.

RECLUZ, Sowerby, The Sauris Conch. part 10, p. 513.

Hab. Island of Luzon, Philippines (on stones in a rapid
river): Cuming.

Of a more compressed solid growth than the preceding
species, painted with a fine network.

Species 5. (Fig. 9, 10, Mus. Cuming.)

NERITINA BICOLOR. *Ner. testâ subcirculari-oblongâ, crassa*
spirâ obtusè exsertâ, crassâ, anfractibus superiorè con-
centricè impressis, declivè convexis, subinde plicatostriatis,
area columellari subangustâ, declivi, circumvoluta-convexâ,
columnellatâ, albis circumvolutis obsolutâ.

THE TWO-COLOURED NERITINA. Shell somewhat con-
ically oblong, thick, spire obtusely exerted, eroded,
whorls concavely impressed round the upper part,
then convex, somewhat rudely plicately striated, colu-
mellar area rather narrow, slanting; greenish-olive,
unspotted, interior bluish-white.

RECLUZ, Pro. Zool. Soc. 1843, p. 200

Hab. Island of Luzon (on stones in a mountain stream);
Cuming.

The whorls of this species are faintly concavely impressed
round the upper part, and rather rudely flexuously striated
across.



7a



6a



7b



5a



2a



5b



4b



10a



10b



6b

NERITINA.

PLATE II.

Species 6. (Fig. a, 9, Mus. Cuming.)

NERITINA KNORR. *Ner. testâ ovata, subinflata, spirâ planâ-inaperta, plus minusve ovali, anfractibus aequalibus, concentricis, lœvis, siliâ spirâ subovata, 1 1/2, arcu coluellarâ subangulâ; nigra, lobis coluellaribus, subangulatis, lineâ spirâ, lobis, siliâ, lobis coluellaribus, nigra, arcu coluellarâ, subangulatis.*

KNORR'S NERITINA. Shell ovate, rather solid, spirally flattened, more or less corded, whorls rather narrow, concentrically striated, lip slightly auriculated at the upper part, columellar area broadly flat; yellowish-buff, variegated with band of black waves, lip orange-red within, columellar area bluish-black.

Recluz, Voyag. Zool. Soc. Cuvierienne, 1811, p. 271.
Hab. Madagascar.

Distinguished as in *N. pollicaria* by the characteristic smoky blue-black colour of the columellar area and orange-red interior, but less expanded in form.

Species 7. (Fig. a, 6, Mus. Cuming.)

NERITINA CORNEA. *Ner. testâ ovata, spirâ subovata, anfractibus concavis, spirâ inter superficialiter subovata, arcu coluellarâ subangulâ; nigra, sordide lactea maculatâ et fasciatâ, arcu coluellarâ spirâ lobis, nigra, striatâ.*

THE CORNEA NERITINA. Shell ovate, spire slightly exserted, whorls convex, spirally superficially urveol, columellar area rather narrow; black, banded and sprinkled with dark yellowish spots, columellar area intensely black at the upper part, shining.

Nerita cornea, Linnæus, Syst. Nat. (12th edit.) p. 1258.
Nerita nagebata, Lesson.

Hab. Philippine Islands.

This characteristic dull orange-blotched species was found by Mr. Cuming in the above-named locality, eighteen feet high upon Pahu, a quarter of a mile from any river.

Species 8. (Fig. a, b, Mus. Cuming.)

NERITINA PULCHRA. *Ner. testâ orbiculari-ovata, subglobosa, spirâ obliâ planata, anfractibus concavis, convexa aperturâ lateralis, concentricè irregulariter striatis, spirâ inter impresso-linearis, aperturâ expansâ,*

area coluellarâ concavo-planâ; albâ subhemisphæricâ, lobis coluellaribus lobis sanguinis.

PULCH'S NERITINA. Shell orbicularly ovate, subglobose, spire obtusely flattened, whorls convex, broader towards the aperture, concentrically irregularly striated, spirally obsoletely impressively linear, aperture expanded, columellar area concavely flattened; dark brown-black, lip and columellar area deep blood-stained.

Recluz, Voyag. Zool. Soc. Cuvierienne, 1811, p. 375.

Hab. Island of Mindanao, Philippines (on stones in a deep river); Cuming.

Well distinguished by its fine expanded globose form, with ruddy blood-stained lip and columellar area.

Species 9. (Fig. a, 7, Mus. Cuming.)

NERITINA TULLIGERA. *Ner. testâ orbiculari-ovata, subobliquâ, spirâ concavo-compressâ, anfractibus concavis, convexa aperturâ lateralis, concentricè angustioribus, spirâ inter expansâ, lobis supra arcu auriculatâ, arcu coluellarâ leviter convexâ; aperturâ carabescente, lobis lobis auriculatis-rufis, arcu coluellarâ nigro-auriculatâ.*

TULLIGER'S NERITINA. Shell orbicularly ovate, rather depressed, spire concavely impressed, whorls convex, broader towards the aperture, concentrically roughly striated, aperture expanded, lip sharply auriculated at the upper part, columellar area slightly concave; aperture bluish, lip orange-red within, columellar area blackish-buff.

Nerita tulligera, Linnæus, Syst. Nat. (12th edit.) p. 1253.

Nerita rubella, Muller.

Hab. Molucca and Philippine Islands.

This fine species is chiefly distinguished by its broad openly expanded aperture, and the peculiarity of colouring noted in speaking of *N. Knorri*.

Species 10. (Fig. a, b, Mus. Cuming.)

NERITINA SURFUCATA. *Ner. testâ suboblongo-ovata, subconvexâ, spirâ obtusâ, anfractibus supra concavo-convexis, subovatis, siliâ fere obtusis, arcu coluellarâ*

August, 1855.

subangusta; *sordide olivacea*, *area columellaris corallina*,
alba, *superne nigra-ochroleuca*.

THE FAINTLY GROOVED NERITINA. Shell rather oblong-ovate, somewhat vitreous, spire obtuse, whorls slightly concave round the upper part, faintly grooved, grooves almost obsolete, columellar area rather narrow; dull olive, columellar area bluish-white, clouded with black at the upper part.

SOVERBY, Conch. Illustrations, *Neritina* f. 50

Hab. Philippi Islands

Of a uniform dull olive-colour correctly distinguished by Mr. Sowerby, Jun. in his 'Conchological Illustrations' but confounded subsequently in his 'Thesaurus' with *N. cornuta*, from which it differs importantly in form



12a



11a



12b



13a



14a



14b



15a



16a



16b



17a

NERITINA.

PLATE III.

Species 10. (Fig. 10, Mus. Cuming.)

NERITINA BECKII. *Ner. testâ depresso-ovata, seorsim concavaâ, spirâ planiuspressâ, contractilâ, columellâ irregularitè striatâ, areâ columellariâ rugulâto-nigâ, lobo latius uncinatâ, areâ contractilâ foveolâto-labi.*

BECK'S NERITINA. Shell depressly ovate, rather concave beneath, spire flatly impressed, whorls concentrically irregularly striated, columellar area smooth, black, lip orange-red within, columellar area sticky livid.

REULTZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 275.

Hab. — ?

Scarcely distinguishable from varieties of *N. postigera*, and of somewhat doubtful specific value.

Species 12. (Fig. 11, Mus. Cuming.)

NERITINA MARCHIONAYI. *Ner. testâ depresso-ovata, tumida, spirâ sub-exsertâ, aperturâ convexâ, columellâ concentricispressâ, operculâ sub-ovalâ, areâ columellariâ concentricis striatâ, areâ contractilâ foveolâto-labi.*

THE MARCHIONAY NERITINA. Shell depressly orbicular, rather thin, spire slightly exerted, whorls convex, concavely impressed next the spire, aperture rather expanded, columellar area rather narrow, minutely toothed at the edge. Black, mostly conspicuously waved with yellow.

Hab. Marquesas Islands.

A light elegantly convexly species, with the whorls impressly concave next the spire, with the columella narrow and minutely toothed at the edge, and the aperture rather expanded. The yellow waved marking is sometimes boldly zigzag, sometimes minutely toothed.

Species 13. (Fig. 12, Mus. Cuming.)

NERITINA LATISSIMA. *Ner. testâ depresso-ovalâ, tumida, latiusculâ, spirâ parvâ, distinctâ, columellâ irregularitè striatâ, areâ columellariâ rugulâto-nigâ, lobo latius uncinatâ, areâ contractilâ foveolâto-labi.*

THE VERY BROAD NERITINA. Shell depressly globose, very broadly winged on each side, spire small, dis-

tinct, whorls rounded, impressly convex next the spire, su both, somewhat plicately wrinkled, aperture expanded, lip peculiarly dilated on each side, columellar area broad, rather convex; olive, densely spotted with minute dark shaded yellow spots, columellar area bluish, flesh-tinged.

PRODRIP, *Proc. Zool. Soc.* 1832, p. 200.

Hab. Real Lejos (adhering to fluvialite rocks); Cuming.

This very remarkable species is distinguished from all others of the genus by the prolonged wing-like dilatation on each side of the lip.

Species 14. (Fig. 13, Mus. Cuming.)

NERITINA INTERMEDIA. *Ner. testâ subglobose, tumida, latiusculâ, spirâ sub-exsertâ, columellâ concentricispressâ, operculâ sub-ovalâ, areâ columellariâ latius uncinatâ, areâ contractilâ foveolâto-labi.*

THE INTERMEDIATE NERITINA. Shell subglobose, and times rather swollen, spire a little exerted, finely convoluted, whorls convex, sometimes plicately wrinkled, aperture broadly expanded, columellar area broad, faintly convex, olive-brown, densely freckled with yellow.

PRODRIP, *Proc. Zool. Soc.* 1832, p. 201.

Hab. var. *N. globosa*, Prodrrip.

Hab. Central America (found abundantly on stones in a mountain stream in the Isle of Lions, Bay of Honduras); Cuming.

Very like *N. globosa*, coloration of the winged dilata-tion of the lip, but specifically distinguished in having the spire more rudely exserted.

Species 15. (Fig. 14, Mus. Cuming.)

NERITINA TOLUCA. *Ner. testâ semiglobosâ, tumida, spirâ obtusâ, areâ contractilâ, columellâ concentricispressâ, operculâ sub-ovalâ, areâ columellariâ latius uncinatâ.*

TOLUCA NERITINA. Shell rather narrowly globose, solid, spire obtuse, scarcely exerted, whorls concavely slanting round the upper part, then convex, columellar area rather narrow; olive-black.

REULTZ, *MS.*, Mus. Cuming.

Hab. Benicuat, Sumatra (in a muddy stream); Cuming.

A solid, obtuse, smooth, olive-black shell, impressly concave beneath the sutures.





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NERITINA.

PLATE V.

Species 21. (Fig. *a, b*, Mus. Cuming.)

NERITINA LONGISPINA. *Ner. testâ subglobosâ, costâ spinâ
arankâ cœciliâ, columellâ sinuâ cœciliâ cœciliâ, dila-
tâtiâ spinâ longissimâ, cœciliâ cœciliâ, aperturâ
expansâ, angustâ fortiter sinuâ, cœciliâ cœciliâ,
arankâ cœciliâ, subcœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ,
cœciliâ cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ.*

THE LONG-SPINED NERITINA. Shell subglobose, spi-
re more or less exerted, whorls concavely slanting at
the upper part, then crowned with a row of very
long spines, aperture expanded, sinuated or notched
at the edge, next the spines, columellar area rather
narrow; intense black, columellar area sometimes
faintly blood-tinged.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 312.

Nerita cœciliâ, Chemnitz (not of Linnaeus).

Hab. Island of Rodriguez (on stones in small streams);
Hind.

This very remarkable shell, described by Chemnitz and
Lamarck as the Linnean *Nerita cœciliâ*, is fully proved by
the specimens of the author of the 'Systema Nature,' in
the possession of the Linnean Society, to belong to another
species.

Species 22. (Fig. *a, b*, Mus. Cuming.)

NERITINA DIADEMA. *Ner. testâ subglobosâ, cœciliâ
spinâ abbreviatâ-turritâ, cœciliâ cœciliâ superâ cœciliâ,
dilatâ angulatâ, ad angulâ fortiter sinuâ, oblique
cœciliâ cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ,
cœciliâ cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ,
cœciliâ cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ.*

THE DIADEM NERITINA. Shell subglobose, rather thin,
spire shortly turrited, whorls concave round the
upper part, then angled, strongly spined at the angle,
obliquely wrinkle-striated, or smooth, columellar area
rather narrow, nearly vertical, thickly toothed at the
edge; horny-brown or blackish, sometimes encircled
with narrow yellow zones.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 277.

Hab. Philippine Islands (on stones in small streams);
Cuming.

Of a horny-brown or black, sometimes yellow-zoned,

wrinkle-striated or smooth, crowned with strong be-
curved spines.

Species 23. (Fig. *a, b*, Mus. Cuming.)

NERITINA OBLIQUATA. *Ner. testâ globosâ, solidosâ, spi-
râ obtusâ depressâ, cœciliâ cœciliâ superâ dœciliâ,
dilatâ scœciliâ longissimâ, cœciliâ longissimâ
cœciliâ, aperturâ subcœciliâ, arankâ columellâ sub-
angustâ, angustâ cœciliâ, fœciliâ angustâ rel. obtusâ,
angustâ cœciliâ.*

THE OBLIQUE NERITINA. Shell globose, rather solid
spire obtusely depressed, whorls slanting round the
upper part, then short-spined, everywhere longitudi-
nally wrinkled, aperture somewhat circular, colu-
mellar area rather narrow, arched at the edge,
brown-black or olive, black-lined.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1842, p. 183.

Hab. Island of Mindanao, Philippines; Cuming.

Of rather solid globose form, with a wrinkled surface,
crowned with short irregular spines.

Species 24. (Fig. *a, b*, Mus. Cuming.)

NERITINA SUBGRANOSA. *Ner. testâ globosâ, spinâ cœ-
lœciliâ-turritâ, cœciliâ cœciliâ obtusâ, cœciliâ cœciliâ
superâ angulatâ, arankâ cœciliâ, arankâ angulatâ et
spinâ, fortiter cœciliâ cœciliâ, subcœciliâ, cœciliâ
cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ, cœciliâ cœciliâ,
cœciliâ cœciliâ.*

THE GRANULATED NERITINA. Shell globose, spire shortly
turrited, sometimes thickly obtuse, whorls angled
round the upper part, now smooth, now angled and
spined, strongly wrinkle-striated, granulated, colu-
mellar area narrow, sometimes expanded; greenish-
olive.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 310.

Hab. Philippine Islands; Cuming.

Of this subgranulated wrinkle-striated specimen Mr
Cuming possesses specimens, as illustrated in the accom-
panying Plate, convoluted into a smooth, obtuse, nicely-
constructed spiral, as well as into one concavely turned
and spined. They present little or no variation of color,
all being of a uniform greenish-olive.



NERITINA.

PLATE VI.

Species 25. (Fig. 10, 11, Mus. Cuning.)

NERITINA DUBOYANA. *Ner. testis subglobosa, spirae vix exsertæ, ac fœvilius superæ declivitate, subulo a plicatis, ad angulata spiræ emittens crurates distantes, columella, lamina evanescens striata, area columellæa v. plicata, linea vixis areolata subulati, angula vixis v. areolata, a. v. obtruncatolobæ, nigro strigata vel scilicet v. punctulata.*

DUBOYAN'S NERITINA. Shell subglobose, spiræ obtusely exserted, whorls slanting round the upper part, then angled, coronated at the angle with curved distant lines, finely wrinkle-striated, columellar area rather narrow, grooved in an arch towards the base, minutely plicated at the edge; olive-yellow, striated or faintly punctated with black.

1841 (Zool. Society, The Fauna Cambrylæ, part 19, p. 25, pl. 110, f. 39, 40.)

1842. Island of Guimaras, Philippines (on stones in a small rivulet); Cuning.

Distinguished by its very neatly reticulated pattern of streaked markings, and by a small arched groove at the basal part of the columellar area.

Species 26. (Fig. 12, Mus. Cuning.)

NERITINA SUBPUNCTATA. *Ner. testis subglobosa, spiræ vix exsertæ, ac fœvilius superæ declivitate, subulo a plicatis, ad angulata spiræ emittens crurates distantes, columella, lamina evanescens striata, area columellæa v. plicata, linea vixis areolata subulati, angula vixis v. areolata, a. v. obtruncatolobæ, nigro strigata vel scilicet v. punctulata.*

MINUTELY-DOTTED NERITINA. Shell globose, thick, solid, spiræ obtusely flattened, whorls slanting round the upper part, then obtusely angled and rounded, longitudinally rather finely plicately striated, aperture slightly expanded, columellar area convexly slanting; olive, striae yellowish, intervals faintly dotted.

1841 (Zool. Soc. 1841, p. 139.)

1842. Province of North Bicos, Island of Luzon, Philippines (in a small mountain stream); Cuning.

1843. Island shell, of somewhat rad. oblique structure, longitudinally plicately striated, the

radially plicately striated, the plicæ being produced faintly dotted with colouring matter.

Species 27. (Fig. 13, 14, Mus. Cuning.)

NERITINA COBANA. *Ner. testis subglobosa, spiræ vix exsertæ, ac fœvilius superæ declivitate, subulo a plicatis, ad angulata spiræ emittens crurates distantes, columella, lamina evanescens striata, area columellæa v. plicata, linea vixis areolata subulati, angula vixis v. areolata, a. v. obtruncatolobæ, nigro strigata vel scilicet v. punctulata.*

THE COBON'S NERITINA. Shell subglobose, spiræ scarcely exserted, whorls convexly slanting at the upper part, with the surface wrinkle-striated, then angled, crowned with rather distant spines at the angle. Columellar area smooth, columellar area rather narrow, black or olive variously banded and speckled with yellow.

1842. *Ann. Mag. Nat. Hist. Nat.* (12th ed.) p. 1252. *Ner. testis subglobosa, spiræ vix exsertæ, ac fœvilius superæ declivitate, subulo a plicatis, ad angulata spiræ emittens crurates distantes, columella, lamina evanescens striata, area columellæa v. plicata, linea vixis areolata subulati, angula vixis v. areolata, a. v. obtruncatolobæ, nigro strigata vel scilicet v. punctulata.*

1843. Island of Paria, Philippines (on stones in rivulets); Cuning.

Mostly of a dark olive or sombre brown, variously spotted with yellow, now in bands, now in dots or splashed specks.

Species 28. (Mus. Cuning.)

NERITINA SUBVIRIDINA. *Ner. testis subglobosa, spiræ vix exsertæ, ac fœvilius superæ declivitate, subulo a plicatis, ad angulata spiræ emittens crurates distantes, columella, lamina evanescens striata, area columellæa v. plicata, linea vixis areolata subulati, angula vixis v. areolata, a. v. obtruncatolobæ, nigro strigata vel scilicet v. punctulata.*

THE SUBVIRIDINA NERITINA. Shell subglobose, spiræ scarcely exserted, obtuse, whorls flatly slanting at the upper part, then angled, coronated with spines at the angle, everywhere conspicuously wrinkle-striated, columellar area rather narrow, convexly slanting; olive, more or less brown-tinted.

1842. *Ann. Mus. Nat. Hist. Nat.* p. 572. *Ner. testis subglobosa, spiræ vix exsertæ, ac fœvilius superæ declivitate, subulo a plicatis, ad angulata spiræ emittens crurates distantes, columella, lamina evanescens striata, area columellæa v. plicata, linea vixis areolata subulati, angula vixis v. areolata, a. v. obtruncatolobæ, nigro strigata vel scilicet v. punctulata.*

1843. Philippine Islands; Cuning.

Of smaller size than the preceding species, conspicuously wrinkle-striated throughout.



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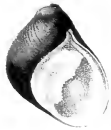
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SPECIES OF *NERITINA* (Mus. Cuming)

NERITINA (NERITINA) NERITINA.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 10.)

DESCRIPTION.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 10.)

SIZE.—Length, 4 mm. (See Plate I, figs. 5, 6, & 22.)
H. C. Cuming.

This peculiarly local Japanese species is distinguished by its very strong spiral cord, depression of the suture, and the appearance of the umbilical cord.

SPECIES 37 (Fig. 11, Mus. Cuming)

NERITINA (NERITINA) NERITINA.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 11.)

DESCRIPTION.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 11.)

SIZE.—Length, 4 mm. (See Plate I, figs. 5, 6, & 22.)
H. C. Cuming.

This peculiarly local Japanese species is distinguished by its very strong spiral cord, depression of the suture, and the appearance of the umbilical cord.

This species is locally abundant, and is distinguished by its very strong spiral cord, depression of the suture, and the appearance of the umbilical cord.

SPECIES 38 (Fig. 12, Mus. Cuming)

NERITINA (NERITINA) NERITINA.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 12.)

DESCRIPTION.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 12.)

SIZE.—Length, 4 mm. (See Plate I, figs. 5, 6, & 22.)
H. C. Cuming.

LOCALITY.—Amakusa, vertical coast, p. 371

H. C. Cuming.

Specimens of this peculiar variety of an obliquely squarish form fit closely together, and are indistinguishable from each other.

SPECIES 39 (Fig. 13, Mus. Cuming)

NERITINA (NERITINA) NERITINA.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 13.)

DESCRIPTION.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 13.)

SIZE.—Length, 4 mm. (See Plate I, figs. 5, 6, & 22.)

H. C. Cuming.

This species is locally abundant, and is distinguished by its very strong spiral cord, depression of the suture, and the appearance of the umbilical cord.

SPECIES 40 (Fig. 14, Mus. Cuming)

NERITINA (NERITINA) NERITINA.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 14.)

DESCRIPTION.—Shell globose, convex, with a very strong spiral cord, depression of the suture, and a very distinct umbilical cord. (Fig. 14.)

SIZE.—Length, 4 mm. (See Plate I, figs. 5, 6, & 22.)

H. C. Cuming.

This species is locally abundant, and is distinguished by its very strong spiral cord, depression of the suture, and the appearance of the umbilical cord.

This species is locally abundant, and is distinguished by its very strong spiral cord, depression of the suture, and the appearance of the umbilical cord.



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NERITINA.

PLATE IX.

Species 39. (Fig. *a, b*, Mus. Cuming.)

NERITINA ZEBRA. *Ner. testâ ovata, spirâ parvâ, exsertâ, anfractibus superâe declivibus, dinate concavis, orâ columbellari acutâ declivâ, sanguine sântâ declivitatâ; nigra, lineis fâcis obliquè analatâ longitudinalitèr striatâ.*

THE ZEBRA NERITINA. Shell ovate, spire small, exserted, whorls slanting round the upper part, then convex, columellar area sharply slanting, minutely denticulated at the edge; black, striped with obliquely waved longitudinal yellow lines.

LAMARCK, *Annal. sans vert.* vol. viii. p. 570.

Hab. Tahiti.

All other species, with a small obtusely spire, obliquely longitudinally striped with yellow lines upon a black ground.

Species 10. (Fig. *a, b*, Mus. Cuming.)

NERITINA SOBRIANA. *Ner. testâ compressè globosâ, spirâ obtusâ, r. exsertâ, anfractibus superâe declivibus, subangustis, subhex planatis, l. cibus, orâ columbellari callusâ, subverticali, intra-ductâ, striâ analatâ subhorizontalibus pectâ.*

THE ALLIED NERITINA. Shell compressly globose, spire obtuse, scarcely exserted, whorls slanting round the upper part, rather narrow, flattened beneath, smooth, columellar area callous, rather vertical; yellowish-olive, marked with rather distant zigzag black streaks.

REOLUZ, *Sowerby, Thesaurus Couch.* part 10. p. 536. pl. 112. f. 100.

Hab. —?

Of a peculiar obtuse flatly slanting growth about the spire, descending vertically beneath

Species 41. (Fig. *a, b*, Mus. Cuming.)

NERITINA CUMINGIANA. *Ner. testâ pyramidalitèr-conicâ, spirâ usquâ, exsertâ, anfractibus superâe plano-declivibus, basi convexis, orâ columbellari callusâ; rivas-cente-nigrâ, lineis albis tenuibus longitudinalitèr analatâs multaque notatâ, orâ columbellari convexâ.*

CUMING'S NERITINA. Shell pyramidally conical, spire large, erect, whorls flatly slanting round the upper part, convex at the base, columellar area callous;

greenish-black, marked throughout with fine longitudinally waved white lines, columellar area carinate.

REOLUZ, *Revue Zool. Soc. Chuvierienne*, 1812, p. 77.

Hab. Island of Siquijor, Philippines (on stones in mountain streams); Cuming.

This fine species is well characterized by its solid erect pyramidal form.

Species 12. (Fig. *a, b*, Mus. Cuming.)

NERITINA SMITHI. *Ner. testâ globosâ, solidâ, spirâ sub-conicâ, anfractibus superâe impresso-planatis, dinate, convexis, l. cibus, orâ columbellari callusâ; rivas-cente-nigrâ, fâcis nigris laticibus capillariibus, intra-ductis, rivas-cente-nigrâ longitudinalitèr pectâ, orâ columbellari subangustâ-ductâ.*

SMITH'S NERITINA. Shell globose, solid, spire sub-conical, whorls impressly flattened round the upper part, then rounded, smooth, columellar area callous; bluish-white, painted with irregular interrupted longitudinal black bands and hair-lines, columellar area blood-stained.

GRAY, *Sowerby, Couch. Illus. Neritina*, f. 36.

Hab. Banks of the Ganges, Calcutta.

Distinguished by its peculiar mottled grey painting and porcelain-like substance, and characteristic blood-stain on the columellar area.

Species 13. (Fig. *a, b*, Mus. Cuming.)

NERITINA MORIO. *Ner. testâ ovata, spirâ parvâ, impressâ, anfractibus superâe plano-declivibus, subangustis, orâ columbellari mente convexâ; intense rubromentâ, orâ columbellari lutescente.*

THE TURTLE NERITINA. Shell ovate, spire small, impressed, whorls flatly slanting round the upper part, rather narrow, columellar area sharply convex; deep coal-black, columellar area yellowish.

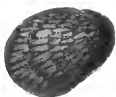
SOEWERY, *Pro. Zool. Soc.* 1852, p. 201.

Hab. Ducie's and Easter Islands, South Seas (on coral reefs); Cuming.

This species, partaking of the marine character of *Nerita*, is perhaps more strictly referable to that genus.



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NERITINA.

PLATE XI.

Species 19. (Fig. *a, l*. Mus. Cuming.)

NERITINA SPINIFERA. *Ner. testâ subglobosâ, biconvexâ, spirâ obtusâ, anfractibus superius convexis, deinde angulatis, ad angulum spiniferis, area columellari subangustâ, marginè denticulatâ; ultracostis-rufâ, punctis cinescentibus lutescentibus.*

THE SPINED NERITINA. Shell subglobose, rather thin, spire obtuse, whorls convex round the upper part, then angled, spined at the angles, columellar area rather narrow, denticulated at the margin; olive-red, freckled with greenish-white dots.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1842, p. 183.

Hab. Philippine Islands (on stones in small streams); Cuming.

Neatly freckled throughout with greenish-white dots upon a peculiar ruddy olive ground.

Species 50. (Fig. *a, b*, Mus. Cuming.)

NERITINA BENGALENSIS. *Ner. testâ globosâ, spirâ pleurâ obtusâ, anfractibus convexis-angulatis, deinde subangulatis, ad angulum obscure spiniferis, spinis brevibus, area columellari subangustâ; flavescens-lutescentibus, ultracostis-nigris pallidè reticulatis.*

THE BENGAL NERITINA. Shell globose, spire flatly obtuse, whorls convexly slanting round the upper part, then slightly angled, obscurely spined at the angle, spines short, columellar area rather narrow; yellowish-brown, faintly reticulated with olive-black.

Nerita Bengalensis, Chemnitz, *Conch. Cab.* vol. xi. p. 176 pl. 197. f. 1911.

Hab. Bengal.

Of a peculiar dull yellowish-brown, faintly reticulated with olive-black, obtusely keeled at the angle, where the spines are short, blunt, and sometimes partially wanting.

Species 51. (Fig. *a, b*, Mus. Cuming.)

NERITINA ANGELOSA. *Ner. testâ globosâ, spirâ planâ obtusâ, anfractibus obtusè angulatis, rudè plicatocostatis, basin versus levigatis, area columellari excavatâ, marginè arcuatâ; fuscocostâ, latus excavatè.*

THE ANGELOSE NERITINA. Shell globose, spire flatly obtuse, whorls obtusely angled, rudely plicately wrinkled,

smooth towards the base, columellar area excavated, arched at the margin; brown-black, bluish within.

RECLUZ, *MS Mus. Cuming*

Neritina carana, *rev.*, Sowerby

Hab. Philippine Islands; Cuming.

There is a spineless variety of *N. carana*, very closely resembling this species, but it nevertheless possesses a character peculiar to itself.

Species 52. (Fig. *a, b*, Mus. Cuming.)

NERITINA SPINOSA. *Ner. testâ subglobosâ, spirâ obtusâ, anfractibus rotundatis, et levissimis, spinis numerosis, regularibus, area columellari planâ-leviter; flavicostâ, latus numerosis, nigris costatâ, area columellari superius sinuatis-leviter.*

THE SPINY NERITINA. Shell subglobose, spire obtuse, whorls rounded, spined in the middle, spines numerous, regular, columellar area flatly slanting; yellowish, encircled with numerous black lines, columellar area blood-tinged at the upper part.

SOWERBY (*Budgii MS.*), *Tankerville Catalogue*, p. 15 no. 1102.

Hab. Tahiti.

The very pretty species is distinguished by the whorls not being angled, and the spines being unusually numerous and regular. The linear painting is characteristic, and also the blood-stain on the upper edge of the columellar area.

Species 53. (Fig. *a, b*, Mus. Cuming.)

NERITINA RECLUZIANA. *Ner. testâ subglobosâ, spirâ obtusâ, anfractibus superius subangulatis, ad angulum spinosis, spinis brevibus, area columellari planâ-leviter, subarcuatâ; fuscocostâ, punctis luteis aspersis.*

RECLUZ NERITINA. Shell subglobose, spire obtuse, whorls slightly angled at the upper part, spined at the angle, spines short, columellar area flatly slanting, slightly arched; brownish-black, sprinkled with yellow dots.

LE GUILLOT, *Revue Zool. Soc. Cuvierienne*, 1841, p. 345

Hab. New Ireland (on stones in rivulets); Hands.

Of a characteristic brown-black sprinkled throughout with yellow dots.





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674



675



676



677





62a



63a



64a



65a



66a



67a



68a



69a



70a



71a

NERITINA.

PLATE XIV.

Species 64. (Fig. *a, b*, Mus. Cuming.)

NERITINA ARELLANA. *Ner. testis globosâ, solidâ, spirâ
râ exsertâ, obtusâ, angustibus, cute olivâ-nigrescens,
media subplacatis, area columellariâ irregulari, densè ser-
reticulatâ; punctis olivaceo-roseis, punctis albibus nigro
maculatis profusè dispersis.*

THE NET NERITINA. Shell globose, solid, spire exerted,
obtuse, whorls rotundately angled, rather flattened
round the middle, columella densely serrulated at
the edge; pale olivaceous, profusely sprinkled with
whitish black-shaded dots.

RECLUZ, Zool. Soc. Civieranno, 1842, p. 76.
Hab. Philippine Islands.

Of a peculiarly blunt solid structure, resembling a com-
mon nut.

Species 65. (Fig. *a, b*, Mus. Cuming.)

NERITINA TABA. *Ner. testis globosæ-conoides, solidâ, spirâ
subprominenti, plâs obtusâ exsertâ, angustibus superâ
convexis, flexuôsè plicatostriatis, dentib. caracis, l. col-
lâs, area col. l. abruptè distinctâ; nigrescens, sub-
roseâ, laterâ subâ-salia penultimè strigatâ et punctatâ,
interlineâ flexuatâ, fasciâ circumâ-striatâ hanc ret-
iculatâ.*

THE BEAN NERITINA. Shell globose-conoid, solid,
spire rather prominent, more or less crooked, whorls
convex, flexuously plicately striated, then convex,
smooth, columella abruptly slanting; blackish-olive,
prominently streaked and dotted with yellowish-
white, sometimes banded, the band finely reticulated
with bright blood-red.

SOVERBY, Conch. Illustrations, f. 10.

Hab. — ?

Extremely variable in painting, but of a uniform solid
globose-conoid form.

Species 66. (Fig. *a, b*, Mus. Cuming.)

NERITINA INCRURVATA. *Ner. testis globosæ-conoides, so-
lidi, spirâ subobtusâ, plâs angustè exsertâ, angustibus
convexis, l. caracis, dentib. caracis, flexuôsè-striatis,
area col. l. abruptè distinctâ; olivaceo-roseâ, densè
abruptè reticulatâ, fasciâ laterâ latiusculâ peculiariter
obliquè oblongatâ.*

THE INCURVED NERITINA. Shell globose-conoid,
solid, spire rather obtuse, generally crooked, whorls
convexly slanting, then convex, flexuously striated,
columellar area slanting & olivaceous, finely obliquely
white-lined, peculiarly obliquely encumbered with a rather
broad yellow band.

RECLUZ, MS. Sowerby, Thesaurus Conch. part. 10, p. 526.
Hab. Island of Luzon, Philippines (on stones in a rapid
river); Cuming.

This species is remarkable for having the apex generally
much crooked.

Species 67. (Fig. *a, b*, Mus. Cuming.)

NERITINA CLATA. *Ner. testis ovato-globosâ, solidâ, spirâ
gracili, obtusâ, area exsertâ, angustibus superâ plani-
scurvatis, peculiariter flexuôsè impresso-striatis, dentib.
obtusâ, area col. l. abruptè distinctâ; caracis
convexis, l. flexuôsè striatis, l. circumâ-striatis.*

THE ENGRAVED NERITINA. Shell ovately globose, solid,
spire small, obtuse, not exerted, whorls flatly slant-
ing, peculiarly flexuously impressly striated, then
rounded, columellar area excavately slanting; coal-
black, flexuous lines pale rust.

RECLUZ, MS. Sowerby, Thesaurus Conch. part. 10, f. 528.
Hab. South Sea Islands.

An obtusely conoid species, sculptured with impress'd
striae running flexuously from the apex.

Species 68. (Fig. *a, b*, Mus. Cuming.)

NERITINA TRIDENSIS. *Ner. testis plâs-conoides, so-
lidi, spirâ plus minus exsertâ, angustibus superâ con-
vexis, l. caracis, dentib. caracis, area col. l. abruptè
distinctâ; olivaceo-roseâ, densè striatâ, l. circumâ-striatis.*

THE TRIDEN NERITINA. Shell globose-conoid, solid,
spire more or less crooked, whorls convexly slanting
round the upper part, then rounded, columellar area
rather narrow; yellowish, densely finely reticulated
with blood-olive.

LE GUILLOFF, Zool. Soc. Civieranno, 1841, p. 345.
Hab. North Australia.

Very densely reticulated with dark olive on a yellowish
ground.



NERITINA.

PLATE XV.

Species 69. (Fig. *a, b*, Mus. Cuming.)

NERITINA RUGATA. *Ner. testâ obliquè oratâ, subglobosâ, spirâ rîe exsertâ, aufraetibus subangulatis, verrucosocrenatis, ad angulâ obsolete spinosis, arâ columellari declivi, jacta apiceâ subsinuâtâ; carinatio-nigri, intus carinose.*

THE WRINKLED NERITINA. Shell obliquely ovate, subglobose, spire scarcely exerted, whorls faintly angled, wart-wrinkled, obsolete spinous at the angle, columellar area slanting, slightly sinuated next the apex, coal-black, bluish-red within.

RECLUZ, Revue Zool. Soc. Cuvierienne, 1842, p. 75.

Hab. Island of Negros, Philippines (in mountain streams); Cuming.

Well characterized by a fine wart-wrinkled sculpture.

Species 70. (Fig. *a, b*, Mus. Cuming.)

NERITINA IN-SCULPTA. *Ner. testâ oratâ, spirâ obliquè exsertâ, aufraetibus superâ leviter concavis, deinde rotundatis, suis lincibus spirâibus insculptis, arâ columellari subconvexâ; intus carinose-nigri.*

THE ENGRAVED NERITINA. Shell ovate, spire obliquely exerted, whorls slightly concave on the upper part, then rounded, engraved with spiral linear grooves, columellar area rather concave; dark blue-black

Hab. Sandwich Islands.

A dark blue-black shell, engraved throughout with spiral linear grooves, partaking largely of the characters of *Nerita*

Species 71. (Fig. *a, b*, Mus. Cuming.)

NERITINA LISTERI. *Ner. testâ obliquè oratâ, spirâ subconoidi, parva exsertâ, aufraetibus concavis, levibus, arâ columellari declivi, callusâ, aperturâ parvisculâ,ubro contracto; nigricante-olivaceâ, punctis lincisque minutis leviter asperâ.*

LISTER'S NERITINA. Shell obliquely ovate, spire subconoid, but little exerted, whorls convex, smooth, columellar area slanting, callous, aperture rather small, lip contracted; blackish-olive, sprinkled with yellow dots and minute lines.

PETITET, Sowerby, Theaurus Conch. part 10, p. 551.

Hab. Cuba, Nierningua.

Of a peculiar form, the columellar area being very callous, and the lip unusually attenuately contracted.

Species 72. (Fig. *a, b*, Mus. Cuming.)

NERITINA MACGILLIVRAYI. *Ner. testâ ovato-globosâ, spirâ subexsertâ, aufraetibus superâ concavis, deinde rotundatis, deusè elevato-striatis, arâ columellari excavato-declivi; sordide atrâ.*

MACGILLIVRAY'S NERITINA. Shell ovately globose, spire slightly exerted; whorls concave round the upper part, then rounded, closely elevately striated, columellar area excavately slanting; dull black.

Hab. Solomon's Island; Macgillivray.

Well characterized in form, while the surface has a finely-striated satiny hue.

Species 73. (Fig. *a, b*, Mus. Cuming.)

NERITINA AQUATILIS. *Ner. testâ conoidrotundatosâ sordidi, spirâ subobtusâ, aufraetibus superâ leviter concavis, deinde concavis, levibus, arâ columellari callusâ; olivaceo-luteâ, lincis nigris ovale nudatis dense pictâ.*

THE RIPPLED NERITINA. Shell conoidly globose, solid, spire rather obtuse, whorls slightly concave round the upper part, then convex, smooth, columellar area callous, olive-yellow, thickly marked with black zigzag lines.

Hab. — ?

Very densely painted throughout with fine black zigzag lines upon an olive-yellow ground.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

NERITINA.

PLATE XVI.

Species 74. (Fig. *a, b*, Mus. Cuming.)

NERITINA TURTONI. *Ner. testâ globosorovoidali, solidâ, spirâ subprominenti, obtusâ, infractibus superâe leviter convexis, deinde rotundatis, levibus, areâ columellari subangustâ, cellisâ, marginè internè denticulatâ; hinc-nigro-lutescente, nigro longitudinaliter latistrigatâ, areâ columellari carinata.*

TURTON'S NERITINA. Shell globosely conoid, solid, spire rather prominent, obtuse, whorls slightly concave on the upper part, then rounded, smooth, columellar area rather narrow, callous, minutely toothed at the edge, brownish-yellow, longitudinally broadly striped with black, columellar area carination.

HOWERY, *Thesaurus Conch.* part 10, p. 539.
Hab. New Ireland; Hinds.

A dark solid brownish-yellow conoid shell, longitudinally painted with broad waved black stripes.

Species 75. (Fig. *a, b*, Mus. Cuming.)

NERITINA NATALENSIS. *Ner. testâ globosorovoidali, spirâ subprominenti, obtusâ, infractibus superâe convexo-convexioribus, deinde convexis, levibus, areâ columellari subangustâ; fulvo-olivaceâ, nigro obliquè strigatâ.*

THE NATAL NERITINA. Shell globosely conoid, spire rather prominent, obtuse, whorls convexly slanting round the upper part, then convex, smooth, columellar area rather narrow; fulvous-olive, obliquely streaked with black.

Hab. Natal.

Of a more slantingly involuted form than the preceding species, with the black stripes narrower and ranging obliquely in a contrary direction.

Species 76. (Fig. *a, b*, Mus. Cuming.)

NERITINA POWISIANA. *Ner. testâ transverse ovali, depressâ, spirâ obliquè intortâ, infractibus subangustis, concentricè striatis, areâ columellari latâ, juxta apicem in sinu productâ; olivaceo-luteâ, purpurascente fasciatâ, fasciis nigris interruptè maculatâ.*

POWIS'S NERITINA. Shell transversely ovate, depressed,

spire obliquely turned in, whorls rather narrow, concentrically striated, columellar area broad, produced into a sinus next the apex; olive-yellow, faintly banded with purple, and mottled with interrupted black bands.

REPUZ, *Thesaurus Conch.* part 10, p. 511.
Hab. New Ireland (on stones in a mountain stream); Hinds.

An elevated involuted shell, with the edge of the last whorl next the apex produced into a sinuated horn.

Species 77. (Fig. *a, b*, Mus. Cuming.)

NERITINA SOLIDISSIMA. *Ner. testâ depresso-orbiculari, solidâ, spirâ obliquè intortâ, infractibus subangustis, convexo-aperturam expansis, striâ impressâ spirâlis scriptis, areâ columellari subobtusâ; carbonariâ, punctis micantibus albis aspersâ.*

THE VERY SOLID NERITINA. Shell depressly orbicular, solid, spire obliquely turned in, whorls rather narrow, expanded towards the aperture, engraved with spiral impressed striae, columellar area rather callous; coal-black, sprinkled with minute white dots.

HOWERY, *Thesaurus Conch.* part 10, p. 511.

Howery, — ?

A very characteristic species, round and expanded in form, engraved with spiral impressed striae; deep coal-black, sprinkled with minute white specks.

Species 78. (Fig. *a, b*, Mus. Cuming.)

NERITINA ATERRIMA. *Ner. testâ globosorovoidali, spirâ subprominenti, obtusâ, infractibus superâe convexis, deinde rotundatis, levibus, areâ columellari angustâ; aterreâ intus evanescente-oblâ.*

THE VERY BLACK NERITINA. Shell globosely conoid, spire rather prominent, whorls concave round the upper part, then rounded, smooth, columellar area narrow; deep black, bluish-white within.

KOCI, *Philippi, Abbild. und Besch. Conch.* pl. 1 f 11

Hab. — ?

Of a simple globosely conoid form, deep black, without indication of any pattern.



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NERITINA.

PLATE XVII.

Species 79. (Fig. *a, b*, Mus. Cuming.)

NERITINA BICANALICULATA. *Ner. testâ ovata, subdepressâ, utrinque penitiusciter canaliculato-alata, spirâ obliquè intortâ, lævigatâ, areâ columellari peracuta, apertura parvâ; pallide olivaceo-alata, nigro tenuè reticulatâ.*

THE DOUBLE-CHANNELLED NERITINA. Shell ovate, rather depressed, peculiarly canaliculate winged on each side, spire obliquely turned in, smooth, columellar area very large, aperture small; pale olive-yellow, finely reticulated with black.

RECLUZ, MS., Sowerby, *Thesaurus Conch.*, part 10, p. 509.

Hab. Island of Luzon, Philippines (on stones in small ponds). Cuming.

Peculiarly distinguished by its channelled auricular wings.

Species 80. (Fig. *a, b*, Mus. Cuming.)

NERITINA SUBAURICULATA. *Ner. testâ ovata, subdepressâ, spirâ obliquè intortâ, concentricè striatâ, areâ columellari peracuta, superne subauriculata, pallide olivaceo-alata, nigro tenuè reticulatâ.*

THE SLIGHTLY-EARLED NERITINA. Shell ovate, rather solid, spire obliquely turned in, concentrically striated, columellar area very large, slightly auriculated at the upper part; pale olive-yellow, finely reticulated with black.

RECLUZ, MS., Sowerby, *Thesaurus Conch.*, part 10, p. 510.

Hab. Island of Negros, Philippines (on the trunks of palms growing in brackish water). Cuming.

Exactly like the preceding species in detail of painting, and very similar in form, the channelled auricles being simply indicated.

Species 81. (Fig. *a, b*, Mus. Cuming.)

NERITINA DILATATA. *Ner. testâ suborbiculato-ovata, utrinque penitiusciter dilatata, spirâ penitiusciter intortâ, concentricè striatâ, areâ columellari latissima, apertura parvâ; pallide olivaceo-alata, nigro apicè penituscè reticulatâ, areâ columellari carinata.*

THE DILATED NERITINA. Shell suborbiculately ovate,

peculiarly dilated on each side, spire obliquely turned inwards, concentrically striated, columellar area very broad, aperture small; pale olive-yellow, openly penitiously reticulated at the back, columellar area carnelion.

BRODERIP, *Proc. Zool. Soc.*, 1832.

Hab. Tahiti (on stones in rivers); Cuming.

The reticulated painting of this species is more open and irregular than in the preceding, and the columellar area is dilated outwards on each side.

Species 82. (Fig. *a, b*, Mus. Cuming.)

NERITINA SANDWICHENSIS. *Ner. testâ obliquè ovata, spirâ depressè intortâ, lævigatâ, areâ columellari oblongâ, in anteriorâ parte spirâ peracuta; perist. olivaceo-alata, lineis concentricis nigris concentricè decussatè pictâ.*

THE SANDWICH ISLANDS NERITINA. Shell obliquely ovate, spire depressly turned inwards, smooth, columellar area rather broad, produced into an auricle next the spire; pale olive-yellow, very densely painted with concentric black waved lines.

DESHAIES, *Ann. sans vert.*, vol. viii. p. 579.

N. ciliata Mairia, *Revue.*

Hab. Sandwich Islands, Mauritius.

Curiously obliquely convoluted, with the outer surface very closely painted with concentrically waved black lines.

Species 83. (Fig. *a, b*, Mus. Cuming.)

NERITINA AURICULATA. *Ner. testâ ovata, utrinque orbiculato-auriculata, spirâ obliquè intortâ, decussatè striatâ, areâ columellari subacuta; olivaceo-nigra, areâ columellari effusate.*

THE EARED NERITINA. Shell ovate, conspicuously auriculately eared on each side, spire obliquely turned inwards, decussately striated, columellar area rather large; olive-black, columellar area tinged with red.

LAMAREC, *Ann. sans vert.*, vol. viii. p. 572.

Hab. New Holland.

The auricles in this species are distinguished from those of its allies by a more horizontal lateral growth.



NERITINA.

PLATE XVIII.

Species 84. (Fig. *a, b, c, d*, Mus. Cuming.)

NERITINA ACULATA. *Ner. testis compressa orbis limbo spate obliquè tuberculat, pleurae, angustellum emarginat, spirae oblique, latis sicut in Neritina, areæ columellari superficialiter excavatâ, scabellâ, foveâ, ovata.*

HEL. PLECKLY NERITINA. Shell depressly ovate, thin, spire obliquely turned inwards, flattened, whorls convex, spirally ridged, ridges serrated or praeley, columellar area superficially excavated, dull brown, horny.

GARDIN. Syst. Nat. 13th edit. p. 3686. Chemnitz, Conch. Cab. vol. x. pl. 169. f. 1612.

Neritina subulata, Nysl.

Hel. Sumatra.

Of a distinct subgeneric type, thin and horny in substance, partaking of the character of *Paludicola*.

Species 85. (Fig. *a, b*, Mus. Cuming.)

NERITINA FLORIDANA. *Ner. testis emarginato-globosa, scabellâ ovata, spirâ obtusa, angustellum superius pleuroconvexis, areâ columellari callosa, foveâ scabellari, latis sicut in Neritina, areâ columellari subangustâ, olivaceo-nigrâ.*

HEL. FLORIDA NERITINA. Shell compressly globbose, rather solid, spire obtuse, whorls rather flattened at the upper part, columellar area callous; greenish-white, densely elegantly painted with very fine olive lines.

SHEPHERD. MS. Mus. Cuming.

Neritina rosulenta, *var.*, Sowerby.

Hel. Florida.

Closely allied to *Neritina rosulenta*, from which it scarcely differs except in being of a more stunted growth.

Species 86. (Fig. *a, b*, Mus. Cuming.)

NERITINA DEPRESSA. *Ner. testis compressa orbis, scabellâ ovata, spirâ obliquè tuberculat, angustellum angustis, rotundis, foveâ scabellari, foveâ scabellari, areâ columellari callosa, foveâ scabellari, olivaceo-foveâ, plus minus scabellâ, aperture emarginatâ.*

THE COMPRESSED NERITINA. Shell compressly ovate, rather solid, spire obliquely turned inwards, whorls narrow, rounded, delicately minutely striated, columellar area large, with the margin continuous, olive-brown, more or less variegated, aperture emarginated.

BENSON. MS. Mus. Cuming.

Hel. Calcutta.

Of a solid *Urosalpinx*-like form, with an expanded continuous aperture.

Species 87. (Fig. *a, b*, Mus. Cuming.)

NERITINA CUVERIANA. *Ner. testis orbato-globosa, solidior, spirâ superprominenti, angustellum rotundis, callosa, areâ columellari subangustâ, olivaceo-nigrâ, latis punctatâ et variegatâ.*

CUVER'S NERITINA. Shell ovately globose, rather solid, spire slightly prominent, whorls rounded, smooth, columellar area rather narrow, olive-black, dotted and variegated with yellow.

RECLUSE. Revue Zool. Soc. Cuvierienne, 1841, p. 338.

Hel. New Ireland.

Of simple form, but varying considerably in painting.



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NERITINA.

PLATE XIX.

Species 88. (Fig. *a* to *k*, Mus. Cuning.)

NERITINA COMMUNIS. *Ner. testâ globoso-conoidâ, spirâ
prominulâ, anfractibus superis convexo-declivibus, de-
vante caucæis, levigatis, nitidis, areâ columellari cul-
losâ; inteseate-albâ, intusâ roseo variè fasciatâ,
strigis obliquis nigris interdum pictâ.*

THE COMMON NERITINA. Shell globose conoid, spire prominent, whorls convexly slanting round the upper part, then convex, smooth, shining, columellar area callous: yellowish-white, variously banded with deep rose, sometimes painted with oblique black stripes.

QUOY and GAIMARD, Voy. de l'Astrolabe

Hab. Island of Siquijor, Philippines; Cuming.

Of this very beautiful and extremely variable species, it has been necessary to give specimens under several different aspects of colouring. The predominant colouring is deep rose, variously interrupted with bands of pale yellow, marked with regular oblique black bands, but these as it may be seen in Fig. 88 *k*, are sometimes absent, while in other specimens, as at Fig. 88 *i*, the black bands are conspicuous, and the rose colouring is wanting.

November, 1855



55a



55b



55c



55d



55e



55f



55g



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55j

NERITINA.

PLATE XX

Species 89. (Fig. 1 to 3, Mus. Cuming.)

NERITA SOWERBYI. *Ner. testâ globosa, subinflata, spirâ raris exsertâ, obtusâ, anfractibus superioribus emulâ plicatâ, rugatis, deorsum rotundatis, areis crassis, aperture parvâ, areâ columellari perobscurâ, subulâ, griseâ, columellâ nigra plus minus areâ circumdata et foveatâ.*

SOWERBY'S NERITINA. Shell globose, rather solid, spire scarcely exerted, obtuse, whorls rudely plicately wrinkled round the upper part then rounded, with the wrinkles fading, aperture small, columellar area very slanting; dull grey more or less variably mottled and banded with blue-black.

RECLUZ: Sowerby, *Thesaurus Conch.* part 10, p. 528.

Hab. Island of Luzon, Philippines (on the stony bed of a small river): Cuming

Distinguished by a characteristic globose nut-shaped form, variously mottled with blue-black and grey

Species 90. (Fig. 4 to 6, Mus. Cuming.)

NERITINA DUBIA. *Ner. testâ obovâ, spirâ leviter exsertâ, laterali, anfractibus subangustis, rotundatis, laceratis,*

areâ raris. Alari subangustis, fulvo-aurantiâ, fasciâ et striâs pallidis nigrocyaneâ pictâ, lateribus marginâ fulvo-aurantiâ, areâ columellari rotundâ sanguinâ.

THE DOUBTFUL NERITINA. Shell ovate, spire slightly exerted, lateral, whorls rather narrow, rounded, smooth, columellar area faintly excavated, fulvous-orange, variously painted with black bands or waved stripes, sometimes altogether fulvous-orange, with columellar area deep blood-red.

CHEMINSZ, *Conch. Cal.* vol. v. p. 324 pl. 193 f. 2019, 2020

Neritina foveolata, Lamarck

Neritina rotundata, Lesson

Neritina reticulata, Quoy and Gaimard

Neritina Philippinæna, Sowerby

Neritina bella, Busch

Hab. River Pasig, Bay of Manila (adhering to the piles of wharfs): Cuming

Though varying considerably in pattern, the ground-colour of this species is invariably a rich fulvous-orange. The columellar area is sometimes tinged, sometimes deeply stained with blood-red, but very rare in the latter state



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NERITINA.

PLATE XXI.

Species 91. (Fig. 3, 4, Mus. Cuming.)

NERITINA PULCHRELLA. *Ner. testâ subglobosa, spirâ obtusâ planâ, anfractibus exterioribus, unâ velutis, unâ pleuro-striatis, areâ columellariâ subangusta, dentâ; tuberculo-rosâ, cervicali-nigra, punctis tuberculatis, lineâ et fasciâ.*

THE PRETTY NERITINA. Shell subglobose, spire obtusely flattened, whorls convex, sometimes smooth, sometimes pleately striated, columellar area rather narrow, slanting, yellowish-rose, variously stained or banded with blue-black, interrupted with dots.

Hab. Island of Luzon, Philippines (on stones in a small stream); Cuming.

A small globose shell, variably painted, very much resembling *N. feba*, but wanting the depression which characterizes the upper portion of the whorls of that species.

Species 92. (Fig. 4, 5, Mus. Cuming.)

NERITINA VIRGINIA. *Ner. testâ obliquâ emâ, lat. subglobosâ, spirâ parvâ, subobusâ, anfractibus superioribus delatatis, levibus, rotatis, apertura parvâ, areâ columellariâ porcellana; albâ et pallâ, griseâ, nigrescenti-grœca plus minusve lineatâ, interduâ rosatâ.*

THE VIRGIN NERITINA. Shell obliquely convex, subglobose, spire small, rather obtuse, whorls slanting

round the upper part, smooth, shining; portions small, columellar area very callous; whitish or grey, more or less reticulated with blackish-grey, sometimes tinged with rose.

LAMARCK, *Ann. Mus. Vert.* vol. viii. p. 575.

Neritina Virginiana and *Leachii*, Recluz. *Hab.* West Indies.

Of a peculiar grey reticulated pattern, the network being sometimes broken up into oblique irregular lines.

Species 93. (Fig. 6, 7, Mus. Cuming.)

NERITINA PAPA. *Ner. testâ subobliquâ globosâ, spirâ parvâ, lat. rotâ, anfractibus superioribus, levibus, areâ columellariâ planâ striâ; albâ, cervicali-nigra plus minusve rotâ et punctâ et reticulatâ.*

THE PAPA NERITINA. Shell somewhat obliquely globose, spire small, elevated, whorls convex, smooth, reticulated, or flatly slanting, white, more or less closely striped, or reticulated with blue-black.

Nerita papa, Lamour. *Syst. Nat.* 12th edit. p. 1255. *Hab.* Jamaica.

A globose species, convoluted somewhat obliquely, reticulated or striped with blue-black, varying more or less in the closeness of the pattern.



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NERITINA.

PLATE XXII.

Species 94. (Fig. *a, b*, Mus. Cuming.)

NERITINA CHLOROSTOMA. *Ner. testâ globosâ, tenui, tumidiusculâ, spirâ subexsertâ, anfractibus superâe impressis, deinde rotundatis, substriatis, arca columellari declivi; intusâ ferrugineo-griseâ, albipunctatâ, ad suturam ciliatâ, aperturâ laevi.*

THE YELLOW-MOTTLED NERITINA. Shell globose, thin, rather swollen, spire slightly exerted, whorls impressed round the upper part, then rounded, substriated, columellar area slanting; dark rusty-grey, dotted with white, filleted at the sutures, aperture yellow.

BRODLER, *Proc. Zool. Soc.* 1832, p. 201.

Hab. Tahiti (at the mouth of a small stream, at times covered with salt water); Cuming.

Of somewhat light structure, dark grey, thickly studded with minute white dots, with the aperture yellow.

Species 95. (Fig. *a, b*, Mus. Cuming.)

NERITINA TRISERIALIS. *Ner. testâ subglobosâ, spirâ rige exsertâ, anfractibus superâe subplanatis vel declivibus, arca columellari angustâ, callosâ; nigricante-griseâ, intusâ albidis aspersâ, in seribus tribus distinctioribus.*

THE TRISERIAL NERITINA. Shell subglobose, spire scarcely exerted, whorls rather flattened round the upper part, or slanting, columellar area narrow, callous; dark grey, sprinkled with white spots, more distinct in three rows.

SOWERBY, *Thesaurus Conch.* part 10. f. 521.

Hab. — ?

A dark grey white-spotted shell, in which the spots inditeate, more or less distinctly, three interrupted bands.

Fig. 96. (Mus. Cuming.)

The fine specimen here figured proves to be a variety of *N. cicutatis*, represented at Pl. XIX.

Species 97. (Fig. *a, b*, Mus. Cuming.)

NERITINA CUPERINA. *Ner. testâ oblongo-conicâ, spirâ turbinatâ, anfractibus superâe impressis, deinde convexis, obliquè striatis, arca columellari subnullâ; nigri, intusâ nuditatis luteis pallide notatâ, arca columellari aurantiâ lucenti.*

THE COPPER NERITINA. Shell oblong-conical, spire turbinated, whorls impressed round the upper part, then convex, obliquely striated, columellar area rather callous; black, marked with very faintly indicated zigzag lines, columellar area tinged with orange.

RECLUZ, *MS.*, Mus. Cuming.

Hab. — ?

A well-defined conically turbinate black species, marked with faintly indicated wavy yellow lines, which impart a coppery hue to the shell.

Species 98. (Fig. *a, b*, Mus. Cuming.)

NERITINA APIATA. *Ner. testâ globoso-turbinatâ, tenuis-simâ, spirâ parvisertâ, anfractibus superâe planulatis, deinde rotundatis, subangustis, arca columellari subnullâ; cinereo-griseâ, punctis acicosis transversis aspersâ.*

THE BLE-MARKED NERITINA. Shell globosely turbinate, very thin, spire rather small, whorls flattened round the upper part, then rounded, rather narrow, columellar area rather large; ash-grey, sprinkled with snow-white transverse dots.

RECLUZ, *Sowerby, Thesaurus Conch.* part 10. p. 518.

Hab. Island of Negros, Philippines (on stones in a mountain stream); Cuming.

An unusually light turbinate species, of distinct typical character, dull grey sprinkled with small transverse whitish flakes.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

Species 99. (Fig. a, b, Mus. Cuming.)

NERITINA SPIRALIS. *Ner. testâ truncatâ acutâ, laevicollâ, spirâ parvâ, parvâ exsertâ, laterali, inflexionibus deussatis striatis, subangustis, ultimo antice deussatâ, aperturâ obliquari-acutâ, arâ columellari excavatâ; vitreoscuti-olivaceâ, subpellucidâ.*

THE SPIRAL NERITINA. Shell transversely orate, rather thin, spire small, but little exerted, lateral, whorls descussately striated, rather narrow, the last descending in front, aperture obliquarily ovate, columellar area excavated; greenish-olive, subtransparent.

Hab. —?

Of a characteristic spiral growth, and of a peculiar light substance.

Species 100. (Fig. a, b, Mus. Cuming.)

NERITINA STRIOLATA. *Ner. testâ subglobosâ, spirâ parvâ, obtusâ, inflexionibus concavis, emâ, antice laevi-striatis, arâ columellari callusâ, aperturâ parvisseculâ et pulchre emarginatâ, punctis sparsis nigricantibus aspersâ.*

THE FINELY-STRATED NERITINA. Shell subglobose, spire small, obtuse, whorls convex, concentrically finely striated, columellar area callous, aperture rather small; pale ash-olive, sprinkled with scattered black dots.

Recluz, Sowerby Thesaurus Conch. part 10, p. 557.

Hab. —?

Of a dull *Aspollaria*-like tone of colour, sparsely dotted with black.

Species 101. (Fig. a, b, Mus. Cuming.)

NERITINA PICTA. *Ner. testâ subglobosâ, spirâ obtusâ, inflexionibus concavis, laevibus, politis, arâ columellari callusâ; pallide griseâ, circumscissâ-nigra curvè laevi-articulatâ, arâ columellari cinctâ castaneo-ochrâ.*

THE PAINTED NERITINA. Shell somewhat globose, spire obtuse, whorls convex, smooth, polished, columellar area callous; light grey, variously finely reticulated with blue-black, columellar area bright chestnut-red.

Sowerby, Proc. Zool. Soc. 1832, p. 201.

Hab. Panama (on a mud-bank partially overflowed with fresh water); Cuming.

A beautifully reticulated grey porcellaneous species, with a bright chestnut-red columellar area.

Species 102. (Fig. a, b, Mus. Cuming.)

NERITINA NAVIGATORIA. *Ner. testâ convexo-turbinatâ, spirâ parvâ, inflexionibus superâe declivibus, deinde plano-concavis, laevibus, arâ columellari subcallusâ,*

marginâ levâ denticulatâ; olivaceo-nigra, lineis pallidâ interseantibus, longitudinaliter undatis oratis, arâ columellari lobisovalâ.

THE NAVIGATORS' ISLAND NERITINA. Shell conically turbinated, spire rather prominent, whorls slanting round the upper part, then flatly convex, smooth, columellar area rather callous, finely toothed at the edge; olive-black, painted with faint longitudinally waved yellow lines, columellar area yellowish.

Hab. Navigators' Island, Pacific Ocean.

Of rather light structure for this conoidal form of species, faintly closely waved with yellowish lines upon an olive-black ground.

Species 103. (Fig. a, Mus. Cuming.)

NERITINA FULGUREA. *Ner. testâ subglobosâ, spirâ conicoide, obtusâ, inflexionibus superâe concavis, deinde concavis, laevibus, nitidibus, arâ columellari callusâ; vitreo-olivaceâ, lineis nigris truncatâ acutâ undatis polychromâ undatâ, arâ columellari carinâ.*

THE LIGHTNING-MARKED NERITINA. Shell subglobose, spire scarcely conoid, obtuse, whorls concave round the upper part, then convex, smooth, shining, columellar area callous; glassy-olive, beautifully marked with sharp transversely zigzag black lines, columellar area carinoid.

Hab. —?

A smooth yellowish-olive shell, with a striking glassy polish, marked with acute transversely zigzag black lines, and having a carinoid callous columellar area.

Species 104. (Fig. 103 b, Mus. Cuming.)

NERITINA GUYANAENSIS. *Ner. testâ acuto-globosâ, subdepressâ, spirâ obtusâ exsertâ, inflexionibus concavis, deussè concentricè striatis, arâ columellari callusâ, marginè levâ denticulatâ; inter-olivaceâ, punctis reticulatis aurantâ, arâ columellari carinâ.*

THE GUYANA NERITINA. Shell ovately globose, rather depressed, spire obtusely exerted, whorls convex, closely concentrically striated, columellar area callous, finely toothed at the margin; yellowish-olive, mottled with reticulated dots, columellar area carinoid.

D'Orbigny, Sowerby Thesaurus Conch. part 10, p. 520.

Hab. Realajos, Guayaquil.

A somewhat obtuse-depressy globose species, mottled throughout with light black-edged dots upon a bronzo-like olive ground.



120 a



120 b



121 a



121 b



122 a



122 b



123 a



123 b



124 a



124 b

NERITINA.

PLATE XXIV.

Species 105. (Fig. 104, 105, Mus. Cuming.)

NERITINA LAYARDI. *Not. testâ ovato, radice depressâ, tenui, pellucidâ, spirâ obliquè infertâ, deussulca striatâ, area columbellari parvâ, apertura quadratè wingatâ, olivâ nuceâ rufâ, nigro testâ reticulatâ.*

LAYARD'S NERITINA. Shell ovate, very depressed, thin, transparent, spire obliquely turned in, deussulca striated, columellar area very large, quadrately winged at the upper part; olive-horny, body reticulated with bl. ck.

Hab. Ceylon. F. Layard, Thwaites.

Of a subtransparent horny texture, conspicuously square-winged at the upper part.

Species 106. (Fig. 106, Mus. Cuming.)

NERITINA SOLOMONENSIS. *Not. testâ obliquè ovata, subdepressa, spirâ parvâ, et obsolete, anfractibus convexis, concentricè laticostatis, apertura subquadrâ, area columbellari amplâ, testâ nigro spirâ sinuatâ; olivâ nuceâ rufâ, nigro testâ reticulatâ, area columbellari subquadratè.*

THE SOLOMON ISLAND NERITINA. Shell obliquely ovate, rather depressed, spire small, almost obsolete, whorls convex, concentrically ridge-striated, aperture rather expanded, columellar area large, callous, sinuated next the apex; olive-brown, obscurely reticulated with black, columellar area blood-stained carmelion.

Hab. Solomon's Island.

A very characteristic species in form, and also in sculptural colouring.

Species 107. (Fig. 9, Mus. Cuming.)

NERITINA NOVO-CALÉDONICA. *Not. testâ depressâ, tenui, limbulâ, radiatâ elevatè striatâ, spirâ parvâ, infertâ, area columbellari amplâ, subulcratâ, testâ nigro, area carabulosa, area columbellari parvâ, roseo-ovata.*

THE NEW CALEDONIA NERITINA. Shell depressly ovate, rather thin, radiately elevately striated, spire obliquely turned in, columellar area large, slightly dilated; dull black, interior blue, columellar area pale carmelion.

Hab. New Caledonia.

This species also presents a distinct typical character, thickly ovately expanded within, radiately striated without.

Species 108. (Fig. 107, Mus. Cuming.)

NERITINA ACHILUATA. *Not. testâ depressè ovata, tenui, calâ, spirâ parvâ, obliquè laterali, anfractibus subangustis, thasè radiatâ stentis, apertura dilatè expansâ, area columbellari distinctâ, margine denticulatâ, testâ nigro.*

THE SHARP-EDGED NERITINA. Shell depressly ovate, rather thin, spire small, obliquely lateral, whorls rather narrow, closely radiately striated, aperture dilutely expanded, columellar area slanting, denticulated at the margin; dull black.

MORCH, MS. Mus. Cuming.

Hab. Island of Newbor.

Of light substance, chiefly characterized by an oblique convolution of the spire, and dilutely expanded aperture.



1007



1008



1009



1010



1011



1012



1013

NERITINA.

PLATE XXV.

Species 109. (Fig. *a, b*, Mus. Cuming.)

NERITINA MICHAUDI. *Ner. testâ subglobosâ, spirâ plicato-obtusâ, suturis impressis, anfractibus superioribus plicato-concavis, deinceps concavis, laticibus, plicis, areâ columellari callusâ; tuberculosa, lineis nigric. vent. transverse nublatis ornata.*

MICHAUD'S NERITINA. Shell subglobose, spire flatly obtuse, sutures impressed, whorls flatly concave-round the upper part, then convex, smooth, polished, columellar area callous; yellowish-olive, ornamented with sharp transversely zigzag black lines.

RECLUZ, *Pro. Zool. Soc.* 1844, p. 315.

Hab. Panama.

Of a polished glassy substance, neatly painted with sharp transversely zigzag black lines.

Species 110. (Fig. *a, b*, Mus. Cuming.)

NERITINA LENTIGINOSA. *Ner. testâ conoides-globosâ, sub-insculptâ, spirâ obtusâ, anfractibus superioribus declivibus et subrotundè plicato-striatis, areâ columellari subcallusâ, olivaceâ, punctis minutis albis, nigric. nublatis, per-aiscâ levigatâ.*

THE FRECKLED NERITINA. Shell conoidly globose, rather solid, spire obtuse, whorls slanting round the upper part, and rather rudely plicately striated, columellar area rather callous; olive, promiscuously freckled with minute black-shaded white dots.

Hab. Pacific Islands.

A dark olive *Polynian*-like species, freckled with promiscuous black-shaded white dots.

Species 111. (Fig. *a, b*, Mus. Cuming.)

NERITINA PULCHRA. *Ner. testâ ovato-conoidâ, solidâ, spirâ subexsertâ, anfractibus superioribus concavo-declivibus, deinceps concavis, laticibus, areâ columellari callusâ; tubercul. fultâ, areolis grandibus nigric. tessellatâ aut fuscâ, interduca râta partim lineâ.*

THE PRETTY NERITINA. Shell ovately conoid, solid, spire rather exserted, whorls concavely slanting round the upper part, then convex, smooth, shining, columellar area callous; dark fulvous, tessellated or banded with large black spots, sometimes partially tinged with red.

SOWERBY, *Conch. Illustrations*, t. 59.

Hab. Panama.

A dark shining fulvous species, prettily tessellated with black blotches, sometimes ranging in bands.

Species 112. (Fig. *a, b*, Mus. Cuming.)

NERITINA MILEAGRIS. *Ner. testâ conoides-globosâ, spirâ brevè, obtusâ, anfractibus concavis, laticibus, areâ columellari callusâ-declivi; albidâ, grisea areâ declivi et circum-punctatâ.*

THE GUINEA-FOWL NERITINA. Shell conoidly globose, spire short, obtuse, whorls convex, smooth, columellar area callously slanting; whitish, variously reticulated with grey and snow-flaked.

LAMARCK, *Anim. sans vert.* vol. viii. p. 575.

Hab. Honduras Bay; Dyson.

Distinguished by a characteristic pattern of grey network interspersed with small white flakes.

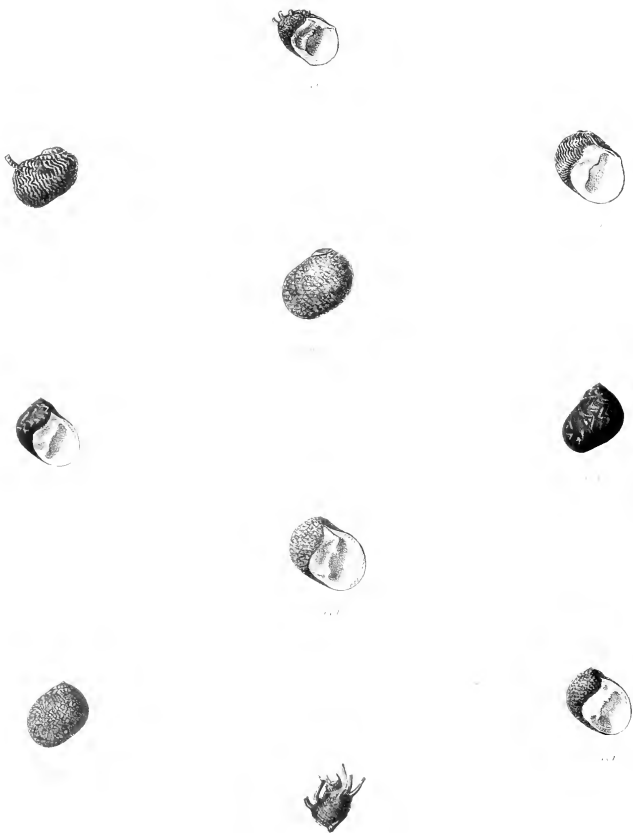
Species 113. (Fig. *a, b*, Mus. Cuming.)

NERITINA FRASERI. *Ner. testâ depresso-subglobosâ, spirâ juvena exsertâ, anfractibus superioribus concavis, deinceps concavis, concentricè plicato-ligatis, areâ columellari tuberculâ, declivi; nigricante-olivaceâ.*

FRASER'S NERITINA. Shell depressly subglobose, spire but little exserted, whorls concave round the upper part, concentrically plicately ridged, columellar area rather broad, slanting; blackish-olive.

Hab. West Africa; Fraser.

A dark olive species, with a characteristic sculpture of wrinkle-ridges.



NERITINA.

PLATE XXVI.

Species 114. (Fig. *a, b*, Mus. Cuming.)

NERITINA ASPERSA. *Ner. testâ subglobosâ, tenuicollâ, spirâ obtusè planatâ, anfractibus corrugato-tuberculatis, superâe angulatis, ad angulâ longispinosâ, areâ columellari declivi, superâe subsinuatâ; columellaribus, punctis luteis nitentibus obscurè aspersâ.*

THE SPRINKLED NERITINA. Shell subglobose, rather thin, spire obtusely flattened, whorls wrinkle-ridged, angled round the upper part, long-spined at the angle, columellar area slanting, a little sinuated at the upper part; oral-black, obscurely sprinkled with minute yellowish dots.

RECLUZ, MS., Mus. Cuming; Sowerby Thesaurus Conch. part 10. p. 521.

Hab. Sandwich Islands.

Generally of small size, wrinkle-ridged throughout, and crowded with long spines.

Species 115. (Fig. *a, b*, Mus. Cuming.)

NERITINA SOULEYETANA. *Ner. testâ subglobosâ, spirâ pluvio-obtusâ, anfractibus loricibus, superâe angulatis, ad angulâ tantè tuberculatis vel spinosis, spicis parvis distantibus, areâ columellari declivi, marginè subarcuatâ; rirescente-olivaceâ, lavis luteis longitudinalibus sublineosis nitidè pictâ.*

SOULEYET'S NERITINA. Shell subglobose, spire flatly obtuse, whorls smooth, angled round the upper part, rudely tubercled or spined at the angle, spines few and distant, columellar area slanting, slightly arched at the margin; greenish-olive, neatly painted with slightly flexuous longitudinal yellow lines.

RECLUZ, Revue Zool. Soc. Cuvierienne, 1842, p. 182.

Hab. Marquesas Islands.

The waved linear yellow painting of this species is perhaps the most striking characteristic.

Species 116. (Fig. *a, b*, Mus. Cuming.)

NERITINA ORTUSA. *Ner. testâ subquadrato-ovoidi, spirâ obtusâ, anfractibus superâe subconcaeco-declivibus, declivè planicoarceâ, marginè obliquè tantè plicato-striatâ, areâ columellari convexâ, superâe sinuatâ, marginè arcuatâ et denticulatâ; sordidè olivaceâ, punctis nitentibus albis transverseis tenuissimâ.*

THE OBTUSE NERITINA. Shell somewhat squarely oval, spire obtuse, whorls rather concavely slanting round the upper part, then flatly convex, everywhere obliquely, rudely, plicately striated, columellar area callous, sinuated at the upper part, arched and denticulated at the margin; dull olive, freckled with small transverse white dots.

BENSON, Sowerby, Thesaurus Conch. part. 10. p. 517.

Hab. Banks of the Ganges, Calcutta.

A solid obtuse species, of a dark olive-colour, freckled throughout with small white dots, splashed transversely.

Species 117. (Fig. *a, b*, Mus. Cuming.)

NERITINA JOVIS. *Ner. testâ conoides-globosâ, spirâ breviusculâ, anfractibus superâe declivibus, declivè rotundatis, loricibus, areâ columellari declivi, marginè arcuatâ et nitidè denticulatâ; alutace-âtriâ, punctis lutescop fulguratis albidis pallidè notatâ.*

JUPITER'S NERITINA. Shell conoidly globose, spire rather short, whorls slanting round the upper part, then rounded, smooth, columellar area slanting, arched and minutely toothed at the margin; shining black, faintly marked with whitish dots and lightning marks.

RECLUZ, MS., Mus. Cuming.

Hab. — ?

A smooth, shining, black, conoidly globose shell, marked with faint white dots and zigzag lines.

Species 118. (Fig. *a, b*, Mus. Cuming.)

NERITINA CASSIUTLEM. *Ner. testâ obtusè conoidiâ, sub-globosâ, solidâ, spirâ rix exsertâ, anfractibus subplanicoarceâ, areâ columellari callosâ, marginè corrugato-striatâ; luteo-olivaceâ, nigro tenè reticulatâ, areâ columellari pallidè concavâ.*

THE LITTLE HELMET NERITINA. Shell obtusely conoid, rather globose, solid, spire scarcely exerted, whorls rather flatly convex, columellar area callous, wrinkle-striated at the margin; yellowish-olive, finely reticulated with black, columellar area pale flesh-tinged.

SOWERBY, Conch. Illustrations, f. 55.

Hab. — ?

A solid bluntly conoid species, of a dark olive-colour, covered with a fine lacing of black.



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1208



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NERITINA.

PLATE XXVII.

Species 119. (Fig. *a, b*, Mus. Cuming.)

NERITINA SIQUIDORENSIS. *Ner. testâ oblongo-ovata, spirâ latâ alâ, auctacibus subangustis, convexis, laciniis, arcâ columellari latâ, angulâ caudatâ; suturâ curvâ, nigro-obscurâ reticulatâ, lat. colun. rufesco-rufatâ.*

THE SIQUIDORE NERITINA. Shell oblong-ovate, spire twisted inwards, whorls rather narrow, compressed, smooth, columellar area broad, with the margin continuous; dull horny obscurely reticulated with black, sometimes pink-tinted.

RECLUZ, *Proc. Zool. Soc.* 1843, p. 198.

Hab. Island of Siquijor, Philippines (in a small stream), Cuming.

A narrow compressed species, with a broad columellar area having a raised edge continuous with the margin of the aperture.

Species 120. (Fig. *a, b*, Mus. Cuming.)

NERITINA GUADIANENSIS. *Ner. testâ oblongo-ovata, solidâ, spirâ subprominenti, obtusâ, auctacibus se præcâ declivibus, inf. rufâ gibbosis, auctacâ ulliâ antwâ descendente, arcâ columellari callosâ, suturâ alâ, griseo-nigra dense reticulatâ.*

THE GUADIANA NERITINA. Shell oblong-ovoid, solid, spire rather prominent, obtuse, whorls slanting round the upper part, gibbous round the lower part, last whorl descending in front, columellar area callous; dull white, densely reticulated with greyish-black.

MORRELET, *Moll. du Portugal*, p. 97, pl. 9, f. 3.

Hab. Guadiana, Portugal.

A solid *Natu*-like species, with the last whorl unusually descending in front, closely reticulated with grey-black.

Species 121. (Fig. *a, b*, Mus. Cuming.)

NERITINA RETICULATA. *Ner. testâ ovali, spirâ subexsertâ, auctacibus subangustis, radiatâ subobscurâ, arcâ columellari declivi, subcaudatâ; laciniis alâ, intus nigro laevâ reticulatâ.*

THE RETICULATED NERITINA. Shell ovate, spire slightly exserted, whorls rather narrow, radiately groove-riated, columellar area slanting, slightly excavated; cream-coloured, openly reticulated with jet-black.

SOUBEY, *Proc. Zool. Soc.* 1832, *Conch. Illus.* f. 2.

Hab. Lord Hood's Island (on sand in brackish water), Cuming.

Distinguished by a loosely reticulated pattern of jet-black upon a cream-coloured ground.

Species 122. (Fig. *a, b*, Mus. Cuming.)

NERITINA DANUBIALIS. *Ner. testâ ovali, spirâ exsertâ, auctacibus subangustis, laevibus, arcâ columellari excavato-declivi; albidâ, strigis nigricantibus flexuosis angulâ transversâ pida.*

THE DANUBIAN NERITINA. Shell ovate, spire scarcely exserted, whorls rather narrow, smooth, columellar area excavately slanting; whitish, streaked throughout with transverse flexuous black striae.

ZIEGLER, *Deshayes Anim. sans vert.* vol. viii, p. 392.

Neritina secretitincta, Ziegler.

Hab. The Danube.

Painted transversely with flexuous black lines, ranged throughout with great regularity.

Species 123. (Fig. *a, b*, Mus. Cuming.)

NERITINA VIOLETA. *Ner. testâ ovali, spirâ rix exsertâ, auctacibus subangustis, laevibus, arcâ columellari planâ declivibus; violaceâ, lineis griseis ventâ undatis dense adalatis.*

THE VIOLET-TINGED NERITINA. Shell ovate, spire scarcely exserted, whorls rather narrow, smooth, columellar area flatly slanting; violet-tinged, thickly clouded with zigzag grey lines.

MORRELET, *Moll. du Portugal*, p. 92, pl. 9, f. 1.

Hab. Coimbra, Portugal.

A rather narrow violet-tinged species, densely clouded throughout with sharply zigzag grey-black lines.



NERITINA.

PLATE XXVIII.

Species 124. (Fig. *a, b*, Mus. Cuming.)

NERITINA PERROTETIANA. *Ner. testâ ovata, subdepressa, spirâ ere exertâ, obtusâ, infractibus superioribus compressis, deinde convexis, facibus, areâ columellari latiusculâ; carbonariis-nigrâ.*

PERROTET'S NERITINA. Shell ovate, somewhat depressed, spire scarcely exerted, obtuse, whorls concavely impressed on the upper part, then convex, smooth, columellar area rather broad; coal-black.

RECLUZ, *Proc. Zool. Soc.* 1841, p. 557.

Hab. Ceylon: Dr. Gardner.

A smooth, coal-black, rather depressed species, but little smaller in size than the accompanying figure. The inscription, "considerably enlarged," in the opposite Plate, should be "slightly enlarged."

Species 125. (Fig. *a, b*, Mus. Cuming.)

NERITINA FLUVIATILIS. *Ner. testâ oblongo-ovata, spirâ parâ, perspicuè convolutâ, infractibus subangustis, facibus, attenuatis, areâ columellari latiusculâ; nigricante-rubrescè, auricis albis reticulatè aspersâ.*

THE FLUVIATILE NERITINA. Shell oblong-ovate, spire small, perspicuously convoluted, whorls rather narrow, smooth, shining, columellar area rather broad; blackish-violet, sprinkled with a network of white spots.

Nerita fluvialilis, Linnæus, *Syst. Nat.* 12th edit. p. 1253.

Neritina Dolauitica, Parich.

Hab. Rivers of France and England.

A rather narrow oblong species, painted with pale blackish-violet, splashed with white subelongated spots.

Species 126. (Fig. *a, b*, Mus. Cuming.)

NERITINA LISTERI. *Ner. testâ subglobosâ, spirâ obtusè planatâ, infractibus convexis, lucibus, areâ columellari cultâ, unguâ; lutescente-olivaceâ, lineis nigris flexuosis confertè pictâ.*

LISTER'S NERITINA. Shell subglobose, spire obtusely

flattened, whorls convex, smooth, columellar area callous, swollen; yellowish-olive, painted with close-set flexuous black lines.

PEFFLER, *Sowerby, Thesaurus Conch.* part 10, p. 534.
Hab. St. John's River, Nicaragua

A subglobose, rather callous species, very neatly painted with close-set flexuous black lines.

Species 127. (Fig. *a, b*, Mus. Cuming.)

NERITINA BACONI. *Ner. testâ suboblongo-ovata, spirâ subexsertâ, obtusâ, infractibus convexis, convexitère striatis, nitidibus, areâ columellari subnulloâ; sordide viridè, nigris aut reticulatâ aut flexuoso-lineatâ.*

BACON'S NERITINA. Shell suboblong-ovate, spire slightly exerted, shining, columellar area rather callous; dull ash-colour, reticulated or flexuously lined with black.

Hab. Swan River; Dr. Bacon.

Somewhat resembling the preceding species in respect of its linear variety of painting, but of a more spirally conoid form, and narrower.

Species 128. (Fig. *a, b*, Mus. Cuming.)

NERITINA GUINERH. *Ner. testâ depresso-orbiculari, spirâ obtusè planatâ, infractibus angustis, convexis aperturam latiusculis, spirali e linearis-sulcatâ, aperturâ columellari spinosâ, areâ columellari declivi; carbonariis-nigrâ.*

GUINERH'S NERITINA. Shell depressly orbicular, spire obtusely flattened, whorls narrow, broader towards the aperture, spirally linearly grooved, aperture rotundately expanded, columellar area slanting; coal-black.

RECLUZ, *Sowerby, Thesaurus Conch.* part 10, p. 541.

Hab. — ?

Distinguished by its pinched compressed spire and round expanded aperture.



1. 10



NERITINA.

PLATE XXIV.

Species 129. (Fig. *a, b*, Mus. Cuming.)

NERITINA JORDANI. *Ner. testâ obtusè conoidi, obusâ, spirâ rix exsertâ, auriculibus planis-declivibus, lobatis, utriculis, areâ columellari callidâ; olivaceo-fuscis-ovate, strigis fuscis fuscissis densè pictâ.*

THE JORDAN NERITINA. Shell obtusely conoid, stout, spire scarcely exerted, whorls flatly-slanting, smooth, shining, columellar area callous; olive-yellow, densely painted with flexuous brown streaks.

SOWERBY, Conch. Illus., F. 19. Theaurus-Conch, part 10, p. 531 pl. 115, f. 213-215.

N. Ell. japonicâs, Recluz.

Hab. River Jordan.

A stout solid species, painted throughout with close-set red-brown flexuous streaks.

Fig. 130. (Mus. Cuming.)

The specimen here figured proves to be a characteristic variety of *N. coluana*, represented at Plate XXVII, Fig. 123.

Species 131. (Fig. *a, b*, Mus. Cuming.)

NERITINA TENBRICOSA. *Ner. testâ depressè globosâ, leviculis, spirâ parvâ, parvâ exsertâ, auriculibus subplanis-concavis, areâ columellari angustâ, declivi, aperturâ subcapitâ; fuscis-olivaceâ, lineis nigris ovale-nudulatis transversis pictâ.*

THE DARK-SHADED NERITINA. Shell depressely globose, rather thin, spire small, but little exerted, whorls rather flatly-convex, columellar area narrow, slanting, aperture rather large; smoky-olive, painted with sharply zigzag transverse black lines.

C. B. ADAMS, Contributions to Conchology, p. 175.

Hab. Jamaica

A light subglobose species, painted with close-set sharply zigzag black lines upon a dull smoky-olive ground.

Species 132. (Fig. *a, b*, Mus. Cuming.)

NERITINA DRINGII. *Ner. testâ depressè oblongâ, subcon-lobatâ, spirâ rix exsertâ, plus minus exsertâ, auriculibus supra rix impresso-concavis, plevalis-striatis, deinde concavis, areâ columellari angustâ, declivi; nigri, lobis rix fasciatâ, lineis nigris minutis nudulis interloba pictâ.*

DRING'S NERITINA. Shell depressely oblong, somewhat esartored, spire scarcely exerted, more or less eroded, whorls impressly-concave round the upper part, plicately-striated, then convex, columellar area narrow, slanting; black, variously banded with yellow, sometimes painted with minute waved black lines.

RECLUZ, MS., Mus. Cuming.

Hab. North Australia.

Very distinct in character, both with respect to form and painting.

Species 133. (Fig. *a, b*, Mus. Cuming.)

NERITINA TURBIDA. *Ner. testâ orbiculari, perlepressâ, levâ, spirâ parvâ, rix exsertâ, auriculibus concavis-concavo-striatis, areâ columellari subcapitâ, callusâ, aperturâ expansâ; fuscis-olivaceâ, nigro obscure reticulatâ.*

THE DISTURBED NERITINA. Shell orbicular, very depressed, thin, spire small, scarcely exerted, whorls convex, concentrically striated, columellar area rather large, callous, aperture expanded, smoky-olive, obscurely reticulated with black.

MORLETT, Test. Nov. Americæ Centralis, p. 27.

Hab. River Machaquilan, Guatemala.

A light, orbicularly depressed shell, peculiarly thinly rotundately expanded.



NERITINA.

PLATE XXX.

Species 131. (Fig. 131 and 135, Mus. Cuming.)

NERITINA GLABRATA. *Ner. testâ obliquè ovatâ, solidâ, spirâ obtusâ, anfractibus concavis, laevibus, albiculis, areâ columellari deorsu' callousâ, apertura' rotundâ; testâ tescente-albâ, nigra fasciatâ vel eâriè lineatâ.*

THE SMOOTH NERITINA. Shell obliquely ovate, solid, spire obtuse, whorls convex, smooth, shining, columellar area thickly callous, aperture very small; yellowish-white, banded or variously lined with black.

SOWERBY, *Thesaurus Conch.* part 10, p. 555, pl. 116 f. 256-263.

Hab. ———?

A beautifully polished, callous, pea-like shell, variously encircled with black bands or lines.

Species 136. (Fig. a, b, Mus. Cuming.)

NERITINA DESMOULINSI. *Ner. testâ depressè orbiculari, spirâ obtusè planatâ, plus minus' crassa, anfractibus concavis, laevibus, areâ columellari subangustâ, declivi, apertura' angustâ, rotundatè-expansâ; carbonariâ nigâ.*

DESMOULINS' NERITINA. Shell depressely orbicular, spire obtusely flattened, more or less eroded, whorls convex, smooth, columellar area rather narrow, slanting, aperture large, rotundately expanded; oval-black.

RECLUZ, MS., Mus. Cuming

Hab. Tahiti.

Distinguished chiefly by its depressed rotundately expanded aperture.

Species 137. (Fig. a, b, Mus. Cuming.)

NERITINA LUTESCA. *Ner. testâ ovatâ, leviculis, spirâ subacutâ, anfractibus concavis, concentricè striatis, areâ columellari declivi, apertura' subexpansâ; spirâ fideâ, rufâ-fuscescente obscure tessellatâ.*

THE SOLLED NERITINA. Shell ovate, rather thin, spire moderately exerted, whorls convex, concentrically striated, columellar area slanting, aperture slightly expanded; dull fulvous, obscurely tessellated with red-brown.

MOBILLET, MS., Mus. Cuming.

Hab. Portugal.

A thin, dull-looking species, almost of the texture of a *Lymnaea*, but nevertheless prettily variegated with ruddy brown.

Species 138. (Fig. a, b, Mus. Cuming.)

NERITINA AFRICANA. *Ner. testâ suborbiculari, spirâ parvâ, riv' exsertâ, anfractibus plano-concavis, areâ columellari subangustâ, declivi; spirâ albâ, laevis angiculis laevibus flexuosis interruptis lobatâ.*

THE AFRICAN NERITINA. Shell suborbicular, spire small, scarcely exerted, whorls flatly convex, columellar area rather narrow, slanting; dull white, marked with delicate interrupted black flexuous lines.

Hab. Africa.

A small, rather compressly convoluted species, marked with characteristic faintly parallel blackish flexuous lines, more or less interrupted.



111



112



113



114

NERITINA.

PLATE XXXI.

Species 139. (Fig. *a, b*, Mus. Cuming.)

NERITINA MACRI. *Ner. testâ oratâ, spirâ subseriatâ, plus minus erosit, anfractibus superiè leviter impressis, deinde coarctis, levibus, arcu columellari declivi; albeo-aurâ.*

THE MACRI NERITINA. Shell ovate, spire slightly exerted, more or less eroded, whorls faintly impressed round the upper part, then convex, smooth, columellar area slanting; shining black.

RECLUZ. Sowerby, Thesaurus Conch. part 10 p. 531, pl. 116, f. 222

Hab. Asia Minor: Lieutenant Spratt, R.N.

A small shining jet-black species, with the spire generally more or less eroded.

Species 140. (Fig. *a, b*, Mus. Cuming.)

NERITINA CARINATA. *Ner. testâ subgloboâ, spirâ plus autâ, plus minus erosit, anfractibus superiè convexo-angulatis, deinde subangulo-carinatis, infra coarctis, arcu columellari declivi; pallide roseo-ente, lineis alternis-nigris flexuosis confertis pictâ.*

THE KEELED NERITINA. Shell subglobose, spire flattened, more or less eroded, whorls concavely angled round the upper part, then rotundately keeled, convex beneath, columellar area slanting; pale green, painted with obscure flexuous, olive-black lines.

KUCHI. Sowerby, Thesaurus Conch. part 10, p. 546, pl. 114, f. 157, 158

Hab. —

Strongly characterized by a prominent rounded keel, which gives a concavely angled structure to the upper part of the whorls

Species 141. (Fig. *a, b, c, d*, Mus. Cuming.)

NERITINA MERTONIANA. *Ner. testâ oratâ, subgloboâ, solida, spirâ parva exertâ, obtusâ, anfractibus coarctis, levibus, altitudibus, arcu columellari plus minus collato; griseo-alba, nigricante varic reticulatâ et foveolâ.*

MERTON'S NERITINA. Shell ovate, subglobose, solid, spire but little exerted, obtuse, whorls convex, smooth, shining, columellar area more or less callous; greyish-white, variously reticulated and banded with black

RECLUZ. Proc. Zool. Soc. 1843, p. 71.

Neritina abalata, Recluz.

Hab. Island of Negros, Philippines (on stones in a small stream); Cuming.

A subglobose callous shining species, variously reticulated and enlaced with black upon a greyish-white ground.

Species 142. (Fig. *a, b*, Mus. Cuming.)

NERITINA RANGIANA. *Ner. testâ oblongo-oratâ, depressâ, Heliciformi, spirâ parvâ, obtusâ exertâ, anfractibus superiè rotâ angulatis, deinde planatis, arcu columellari subangulo, collato; pallide roseo-ente, lineis flexuosis nigris, sparsis-nigro-albis marginatis.*

RANG'S NERITINA. Shell oblong-ovate, depressed, Helicis-shaped, spire small, obtusely exerted, whorls rudely angled round the upper part, then flattened, columellar area rather large, callous; pale green, marked with flexuous black lines, edged with opaque white.

RECLUZ. Revue Zool. Soc. Curieienne, 1841, p. 339.

Hab. Dumaguete, Island of Negros, Philippines (on stones in a small stream); Cuming.

This species, it will be observed, is of a very peculiar form, and singularly marked.



NERITINA.

PLATE XXXII

Fig. 133, 134, 135, 136, 137. (Mus. Cuning.)

FIGS 133, 134, 135, 136, 137 represent respectively the *N. alboscabata*, Ziegler, and *N. carispum*, Recluz, and are varieties of the European *N. florentilis*.

Species 141. (Fig. a, b. Mus. Cuning.)

NERITINA TRISTIS. *Ner. testâ subglobosâ, spirâ parvâ, subcavitâ, laevigatâ, areâ columellariâ declivâ; varu-
sâ nigri, punctis albis densè aspersâ.*

THE SAID NERITINA. Shell subglobose, spire small, rather exerted, smooth, columellar area slanting; blue-black, densely sprinkled with white dots.

D'ORBIGNY, Hist. Moll. Cuba.

Hab. Cuba.

A small pea-shaped species of a dark blue-black colour, densely sprinkled with minute white dots.

Species 145. (Fig. a, b. Mus. Cuning.)

NERITINA ADANSONIANA. *Ner. testâ obliquè cavâ, evanescentâ, spirâ obtusâ, auriculâ subrectâ, basi tumidiusculâ, areâ columellariâ ciliatâ; faldâ, lineis nigris reticulatis vel strigatis.*

ADANSON'S NERITINA. Shell obliquely convex, rather thick, spire obtuse, whorls slanting, rather swollen at the base, columellar area callous; fulvous, reticulated or streaked with black lines.

RECLUZ, Revue Zool. Soc. Cuvierienne, 1844, p. 313.

Hab. Senegal.

Of a solid conical form, with an obtusely exerted spire.

Species 147. (Fig. a, b. Mus. Cuning.)

NERITINA TRIFASCIATA. *Ner. testâ subconvessè ovata, tenui, semipellucidâ, spirâ parvâ, obtusè planâ, auriculâ subangustâ, laevibus, areâ columellariâ compli-
planâ-concavâ; pallidè cinerâ, nigricante pallidè tri-
fasciâ.*

THE THREE-BANDED NERITINA. Shell somewhat compressly ovate, thin, semipellucid, spire small, obtusely flattened, whorls rather narrow, smooth, columellar area large, flatly concave; pale ash-colour encircled with three faint blackish bands.

MENKE, MS. Mus. Cuning.

Hab. ———?

Closely allied to the European *N. florentilis*, but having the spire flattened.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.



Fig. 8.



Fig. 9.



Fig. 10.

(Figures moderately enlarged.)

NERITINA.

PLATE XXXIII.

Species 148. (Fig. *a, b*, Mts. Cuming.)

NERITINA ANATOLICA. *Ner. testâ subglobosâ, spirâ parvâ, suberosâ, anfractibus convexis, levibus, orâ columellari declivi; dilatâ nigra lineâ et lineatâ.*

THE ANATOLIA NERITINA. Shell subglobose, spire small, slightly exerted, whorls convex, smooth, columellar area slanting; lined and stained with dilute black.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 312.

Hab. SYDRA, Aleppo, Sidon, and Scio (in fountains); Recluz.

A solid smooth subglobular species, stained with dilute black.

Species 149. (Fig. *a, b*, Mus. Cuming.)

NERITINA BOURGIGNARTI. *Ner. testâ subattenuato-oblongâ, spirâ conspicuè evolutâ, anfractibus subcompressis, levibus, orâ columellari amplâ, suberosâ; carbonariatâ, supèrâ erosâ.*

BOURGIGNART'S NERITINA. Shell subattenuately oblong, spire conspicuously evolved, whorls rather compressed, smooth, columellar area large, slightly excavated; coal-black, often crooked.

RECLUZ, *MS.*, Mus. Cuming

Hab. ———?

Of rather narrow elegant spiral growth, with a rather large slightly excavated columellar area.

Species 150. (Fig. *a, b*, Mus. Cuming.)

NERITINA CHRISTOVALENSIS. *Ner. testâ subquadrato-orbiculari, depressâ, spirâ obliquè intortâ, anfractibus convexis, utriusque auriculatâ, aperturâ amplius dilatâ, orâ columellari declivi, margine minute denticulatâ; interscoto-albâ, purpureo-roseo pulcherrimè varioratâ.*

THE CHRISTOVAL NERITINA. Shell somewhat squarely orbicular, depressed, spire obliquely twisted in, whorls convex, auriculated on both sides, aperture largely

dilated, columellar area slanting, minutely denticulated at the edge; yellowish-white, prettily mottled with purple-rose.

Hab. St. Christoval, Solomon's Islands: Macgillivray.

A solid compressly raised shell, auriculated on each side with a largely dilated aperture, prettily mottled with purple rose.

Species 151. (Fig. *a, b*, Mus. Cuming.)

NERITINA ROSTRATA. *Ner. testâ oblongo-quadratâ, spirâ intortâ, subcentrali, calidè productâ, quasi costata, anfractibus decatis, perangustis, aperturâ dilatâ, orâ columellari amplâ, superâ quadrato-auriculatâ, intus fuscâ-olivaceâ, intus infesecate-fuscâ.*

THE BEAKED NERITINA. Shell oblong square, spire twisted inward, almost central, much produced, as if beaked, whorls raised, very narrow, aperture dilated, columellar area large, squarely auriculated at the upper part; dark brownish-olive, interior red-brown.

Hab. Ceylon; F. Layard.

A narrow rather compressed species, with a squarely dilated aperture curiously distinguished by the produced beak-like structure of the spire.

Species 152. (Fig. *a, b*, Mus. Cuming.)

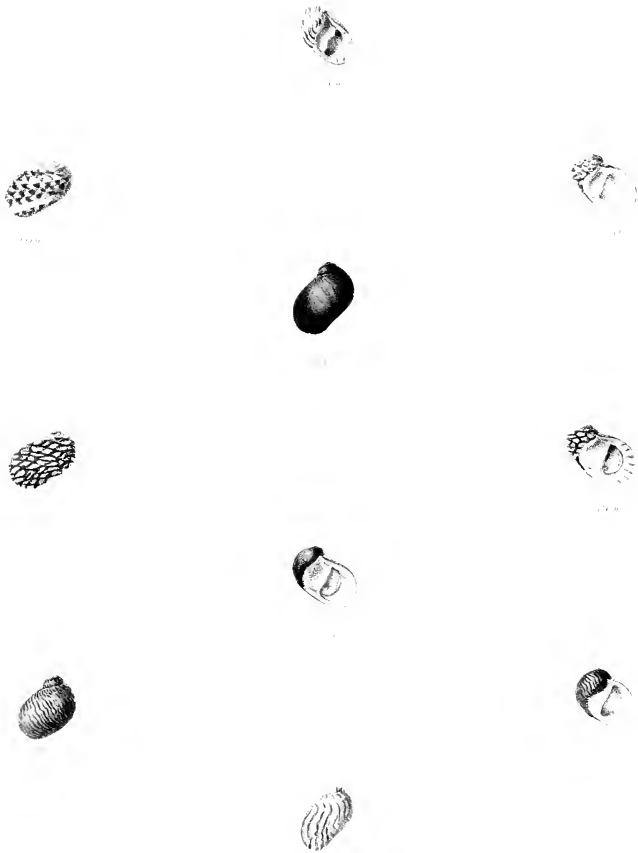
NERITINA PISIFORMIS. *Ner. testâ globosâ, spirâ parvâ, eis erosâ, anfractibus rotundatis, subrugoso-striatis, orâ columellari subamplâ, declivi; carbonario-erosâ.*

THE PEA-SHAPED NERITINA. Shell globose, spire small, scarcely exerted, whorls rounded, somewhat roughly striated, columellar area rather large, slanting; coal-black.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1842, p. 181.

Hab. Tahiti?

A solid globular species, deep black, rather roughly striated and more or less crooked.



NERITINA.

PLATE XXXIV

Species 153. (Fig. *a, b*, Mus. Cuning.)

NERITINA VIRIDIS. *Ner. testâ obliquè ovati, spirâ parvâ, parvâ exsertâ, anfractibus concavis, subangustis, laceribus, nitidibus, areâ columellari callosâ; pellucido-crescatis; punctis albis lineisque nigris capillaribus circumdatâ.*

THE GREEN NERITINA. Shell obliquely oval, spire small, but little exserted, whorls convex, rather narrow, smooth, shining, columellar area callous; transparent green, variegated with black hair lines and white dots.

LINNEUS, Syst. Nat. (12th ed.), p. 1254.

Hab. West Indies.

Chiefly distinguished by its narrow obliquely ovate form, and semitransparent substance.

Figs. 154 and 156. (Mus. Cuning.)

The specimens here figured represent the *N. Mehaudi* and *Verreauxi* of Recluz, and are varieties of *N. fluviatilis*.

Species 155. (Mus. Cuning.)

NERITINA COLUMBIANA. *Ner. testâ subobliquè ovati,*

spirâ nitidè turbatâ, anfractibus concavis, subangustis, areâ columellari excavato-planatâ; intense carneo-nigri.

PREVOST'S NERITINA. Shell somewhat obliquely oval, spire neatly turbinate, whorls convex, rather narrow; columellar area excavately flattened; deep blue-black.

SOWERBY, Conch. Illus. p. 45.

Hab. ———

Of a rather narrow obliquely oval form, very dark shining blue-black.

Species 157. (Fig. *a, b*, Mus. Cuning.)

NERITINA NIGROTA. *Ner. testâ subgloboso-ovati, spirâ subexsertâ, anfractibus rotundatis, areâ columellari subcallosâ; infuscatis, olivaceo dense lineatâ.*

THE NILE NERITINA. Shell somewhat globosely ovate, spire a little exserted, whorls rounded, columellar area rather callous, yellowish, densely lined with olive.

Hab. Banks of the Nile.

Of a peculiar subglobose form, painted with close-set waved olive lines upon a yellowish ground.



148a



149a



150a



151a



152a



153a



154a



155a



156a



157a

(Moderately enlarged)

NERITINA.

PLATE XXXV.

Species 158. (Fig. *a, b*, Mus. Cuming.)

NERITINA SUCCEINEA. *Ner. testâ oblongo-oratâ, levî, pellucidâ, spirâ parvâ, anfractibus levibus, superâ concavo-planatâ, areâ columellari subaaplâ; colore succineo.*

THE SUCCEINEA NERITINA. Shell oblong-ovate, thin, transparent, spire small, whorls smooth, concavely flattened at the upper part, columellar area rather large; amber colour.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 343
Hab. Guadalupe.

A small, transparent, Succinea-like species, resembling *N. fluciatilis* in form.

Species 159. (Fig. *a, b*, Mus. Cuming.)

NERITINA PELOPONNESIA. *Ner. testâ angustè oratâ, spirâ subaaplâ, plus minus erosâ, anfractibus convexis, concentricè striatis, areâ columellari subaaplâ; nitente atrâ.*

THE PELOPONNESIAN NERITINA. Shell narrowly ovate, spire rather large, more or less eroded, whorls convex, concentrically striated, columellar area rather large; shining black.

RECLUZ, MS., Mus. Cuming.
Hab. The Mœra.

Distinguished from *N. fluciatilis* by its spiral plan of convolution and concentric striae.

Species 160. (Fig. *a, b*, Mus. Cuming.)

NERITINA LUGUBRIS. *Ner. testâ oratâ, spirâ parvâ, appressâ, anfractibus angustis, versus aperturam expansis, areâ columellari latâ; nitente cœruleo-nigrâ.*

THE MOURNING NERITINA. Shell ovate, spire small,

appressed, whorls narrow, expanded towards the aperture, columellar area broad; shining blue-black.

PHILIPPI, *Abbild. und Besch. Conch.* pl. 1. f. 9.
Hab. Sandwich Islands.

A shining black species, with a rather expanding aperture.

Species 161. (Fig. *a, b*, Mus. Cuming.)

NERITINA SIDEREA. *Ner. testâ orato-turbinatâ, spirâ subexsertâ, anfractibus convexis, superâ leviter impressis, levibus, areâ columellari declivi; nitente atrâ.*

THE SHINING NERITINA. Shell ovately turbinated, spire rather exserted, whorls convex, slightly impressed round the upper part, smooth, columellar area slanting; shining black.

GOULD, MS., Mus. Cuming.
Hab. Sandwich Islands.

A small, shining black species, with a rather turbinated spire.

Species 162. (Fig. *a, b*, Mus. Cuming.)

NERITINA LECTUOSA. *Ner. testâ orato-conicâ, spirâ turbinatâ, anfractibus convexis, superâ leviter convexis, obscure concentricè striatis, areâ columellari declivi, subexcavatâ; nitente atrâ.*

THE SAD NERITINA. Shell ovately conical, spire turbinated, whorls convex, slightly concave round the upper part, obscurely concentrically striated, columellar area slanting, subexcavated; shining black.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 317.
Hab. —?

A shining black shell, distinguished from the preceding species by its more turbinated conoidal form.



163a



162a



164b



165a



166a



166b



167a



167b



168b



168a

NERITINA.

PLATE XXXVI.

Species 163. (Mus. Cuming.)

NERITINA ZEBRINA. *Ner. testâ obliquè ovatâ, subangustâ, spirâ contractâ, anfractibus convexis, cœcis aperturam expansâ, arâ columellari latiusculâ; lutescente, lineis acutè undatis dense strigatâ.*

THE LITTLE ZEBRA NERITINA. Shell obliquely ovate, rather narrow, spire contracted, whorls convex, expanded towards the aperture, columellar area rather broad; yellowish, densely striped with zigzag lines.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 341.

Hab. Montpellier.

This may probably be a variety of *N. fluviatilis*, but we have been led to figure it because more varieties of *Neritina* have been indiscriminately referred to that species than are admissible.

Species 164. (Fig. a, b, Mus. Cuming.)

NERITINA MICHOUXII. *Ner. testâ ovatâ, spirâ parvâ, plus minus erodâ, anfractibus convexis, levibus, arâ columellari declivi; nitente atrâ.*

MICHOUX'S NERITINA. Shell ovate, spire small, more or less eroded, whorls convex, smooth, columellar area slanting; shining black.

BOTREGUATI, MS., Mus. Cuming.

Hab. —?—

A small shining black species, with an eroded apex.

Species 165. (Fig. a, b, Mus. Cuming.)

NERITINA MERIDIONALIS. *Ner. testâ angustè ovatâ, spirâ parvâ, distinctè convolutâ, anfractibus convexis, subcompressis, levibus, arâ columellari latâ, plano-excavatâ; lutescente-albâ, olivaceo-nigro dense reticulatâ.*

THE MERIDIAN NERITINA. Shell narrowly ovate, spire small, distinctly convoluted, whorls convex, rather compressed, smooth, columellar area broad, flatly excavated; yellowish-white, densely reticulated with olive-black.

PHILIPPI, *Enum. Moll. Sicil.* p. 159. pl. 9. f. 13.

Neritina Moreleti, Recluz.

Neritina elongatula, Morelet.

Hab. Sicily, Portugal.

Rather elongately convoluted, and painted with a close network of olive.

Species 166. (Fig. a, b, Mus. Cuming.)

NERITINA ANATENSIS. *Ner. testâ oblongâ, compressè rotundatâ, solidâ, spirâ parvâ, subobscurâ, anfractibus convexis, vitratibus, arâ columellari pœnimplâ, callosâ; pellucido-cærulescente, strigis griseis obliquè notatâ.*

THE ANATO NERITINA. Shell oblong, compressly rounded, solid, spire small, rather obscure, whorls convex, shining, columellar area very large, callous; transparent-bluish, marked with oblique raised streaks.

RECLUZ, Sowerby, *Theasarus Conch.* part 10. p. 535. pl. 116. f. 247, 248.

Hab. Portugal.

A polished pea-like shell, of a compressed oblong form, with the spire indistinctly exerted.

Fig. 167. (Mus. Cuming.)

The shell here figured, *Neritina thormalis*, Boubé, must be regarded as a variety of *N. fluviatilis*.

Species 168. (Mus. Cuming.)

NERITINA OVALANENSIS. *Ner. testâ rotundato-ovatâ, spirâ parvâ, obscurâ, anfractibus rotundatis, levibus, politis, arâ columellari subangustâ, callosâ; lutescente-albâ, griseo carîe lineatâ aut reticulato-fasciatâ.*

THE OVALAY NERITINA. Shell rotundately ovate, spire small, obscure, whorls rounded, smooth, polished, columellar area rather narrow, callous; yellowish-white, variously lineated or reticulately banded with grey.

RECLUZ, MS., Mus. Cuming.

Neritina Mertonianna, var., Sowerby.

Hab. Ovalay, Sandwich Islands.

Distinguished chiefly from *N. Mertonianna*, which inhabits the Philippine Islands, by its thinner substance and rounded pea-like form.



165a



166a



167b



168a



169a



170a



171a



172a



173b



174a

NERITINA.

PLATE XXXVII.

Species 169. (Fig. *a, b*, Mus. Cuming.)

NERITINA NUMIDICA. *Ner. testâ oratâ, spirâ parvâ, distinctâ, anfractibus convexis, uniauriculatis, lacinibus, acriâ columellari subnigriâ, excavato-plumâ; nigriâ.*

THE NUMIDIAN NERITINA. Shell ovate, spire small, distinct, whorls convex, slightly tumid, smooth, columellar area rather large, excavately flattened; black. RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 346, f. 179.

Hab. Numidia.

A black ovate form of *N. fluvialis*.

Species 170. (Fig. *a, b*, Mus. Cuming.)

NERITINA ARCTILINEATA. *Ner. testâ subobliquè ovalâ, spirâ parvâ, anfractibus convexis, lacinibus, acriâ columellari subnigriâ; lutescente, lineis nigris flexuosis densè pictâ.*

THE CLOSE-LINED NERITINA. Shell rather obliquely ovate, spire small, whorls convex, smooth, columellar area rather narrow; yellowish, densely painted with flexuous black lines.

RECLUZ, *Sowerby, Thesaurus Conch.* part 19, p. 531.

Hab. — ?

An obliquely ovate species, of rather light substance, painted with closest flexuous lines upon a yellowish ground.

Species 171. (Mus. Cuming.)

NERITINA CHIMMOI. *Ner. testâ ovalâ, spirâ quasi exsertâ, acriâ, anfractibus superè convexo-impressis, spirâlicè sulcatis, sulcis superficialibus, subflexuosis, irregularibus, juxta suturam confertioribus, acriâ columellari subnigriâ, declivi, laci; carbonario-âtriâ, acriâ columellari asulcato-sanguineâ intusè laciâ.*

CHIMMO'S NERITINA. Shell ovate, spire as though exserted, altogether eroded, whorls concavely impressed round the upper part, spirally grooved, grooves superficial, rather flexuous, irregular, closer next the suture, columellar area rather narrow, slanting,

smooth, coal-black, columellar area deeply stained with scorched blood-colour.

Hab. — ?

This fine species, in which the columellar area is characterized by a peculiar burnt blood-stain, was collected by Lieutenant Chimmu, we believe, in Australia or New Zealand. Owing to the absence of the collector abroad I am unable to verify the locality.

Species 172. (Fig. *a, b*, Mus. Cuming.)

NERITINA PANAYANA. *Ner. testâ obliquè ovalâ, tenui, uniauriculâ, spirâ attenuatâ, compressâ, acriâ columellari subnigriâ, excavato-plumâ; lutescente, lineis nigris tenuibus flexuosis densè pictâ.*

THE PANAY NERITINA. Shell obliquely ovate, thin, rather swollen, spire attenuated, compressed, columellar area rather large, excavately flattened; yellowish, densely painted with fine flexuous black lines.

SOWERBY, *Thesaurus Conch.* part 19, p. 517, pl. 115, f. 191.

Hab. River Dingle, Island of Panay (on small stones) Cuming.

A delicate shell, of light semitransparent substance, compressly attenuated towards the spire.

Species 173. (Fig. *a, b*, Mus. Cuming.)

NERITINA INQUINATA. *Ner. testâ subquadrato-oratâ, spirâ parvâ, anfractibus convexis, uniauriculatis, acriâ columellari subnigriâ; olivaceâ, lineis tenuibus nigris intricatâ et reticulatâ.*

THE DYED NERITINA. Shell somewhat squarely ovate, spire small, whorls convex, rather swollen, columellar area slightly excavated; olive, mottled and reticulated with fine black lines.

MORELLET, *Mus. Cuming.*

Hab. — ?

Of a rather square ovate form, closely mottled and reticulated with black lines upon an olive ground.

NERITINA.

	Plate.	Species.		Plate.	Species.
aciculata, <i>Morch.</i>	XXIV.	108	Danubialis, <i>Ziegler</i>	XXVII.	122
aculeata, <i>Gmelin</i>	XXIII.	84	depressa, <i>Beauvois</i>	XXVIII.	86
Adansoniata, <i>Recluz</i>	XXXII.	115	Desmoulinii, <i>Recluz</i>	XXX.	136
adumbrata, <i>Reeve</i>	XII.	57	diadema, <i>Recluz</i>	V.	22
Africana, <i>Reeve</i>	XXX.	138	dilatata, <i>Broderip</i>	XVII.	81
<i>amphibia</i> , <i>Lesson</i>	II.	7	dolium, <i>Recluz</i>	III.	15
Anatensis, <i>Recluz</i>	XXXVI.	166	Donovani, <i>Recluz</i>	VI.	25
Anatolica, <i>Recluz</i>	XXXIII.	148	Dringii, <i>Recluz</i>	XXIX.	132
angulosa, <i>Recluz</i>	XI.	51	dubia, <i>Chevaniz</i>	XX.	90
apiata, <i>Recluz</i>	XXII.	98	<i>Elloppenensis</i> , <i>Recluz</i>	XXIX.	129
aquatilis, <i>Reeve</i>	XV.	73	<i>elongatula</i> , <i>Morelet</i>	XXXVI.	165
aretilincata, <i>Recluz</i>	XXXVII.	170	faba, <i>Sowerby</i>	XIV.	65
aspera, <i>Recluz</i>	XXVI.	111	fasciata, <i>Lamarck</i>	XX.	90
asperulata, <i>Recluz</i>	X.	45	Floridana, <i>Shuttleworth</i>	XVIII.	85
ate-riana, <i>Koch</i>	XVI.	78	fluviatilis, <i>Linnaeus</i>	XXVIII.	125
auriculata, <i>Lamarck</i>	XVII.	83	Fraseri, <i>Reeve</i>	XXV.	113
avellana, <i>Recluz</i>	XIV.	64	fulgetrum, <i>Reeve</i>	XXIII.	103
Baconi, <i>Reeve</i>	XXVIII.	127	gagates, <i>Lamarck</i>	X.	47
Berkii, <i>Recluz</i>	III.	11	glabrata, <i>Sowerby</i>	XXX.	134
bella, <i>Busch</i>	XX.	90	granosa, <i>Sowerby</i>	IV.	18
Bengalensis (<i>Verita</i>), <i>Chemn.</i>	XI.	50	Guadianensis, <i>Morelet</i>	XXVII.	120
bienaliculata, <i>Recluz</i>	XXVII.	79	Guyaquilensis, <i>D'Orbigny</i>	XXIII.	104
bicolor, <i>Recluz</i>	I.	5	Gumerii, <i>Recluz</i>	XXVIII.	128
Bourguignati, <i>Recluz</i>	XXXIII.	149	inquinata, <i>Morelet</i>	XXXVII.	178
<i>Brasiliana</i> , <i>Recluz</i>	XXI.	92	insculpta, <i>Reeve</i>	XV.	70
brevispina, <i>Lamarck</i>	VI.	28	intermedia, <i>Broderip</i>	III.	14
Brugneri, <i>Recluz</i>	X.	46	interrupta, <i>Recluz</i>	XIV.	66
caelata, <i>Recluz</i>	XIV.	67	Jurdani, <i>Sowerby</i>	XXIX.	129
Calira, <i>Gray</i>	VIII.	37	Jovis, <i>Recluz</i>	XXVI.	117
Californica, <i>Reeve</i>	IV.	20	Knorri, <i>Recluz</i>	II.	6
canalis, <i>Sowerby</i>	I.	1	labiosa, <i>Sowerby</i>	I.	3
carinata, <i>Koch</i>	XXXI.	140	latissima, <i>Broderip</i>	III.	13
cariosa, <i>Gray</i>	XIII.	60	Lacardi, <i>Reeve</i>	XXIV.	105
cassiculum, <i>Sowerby</i>	XXVI.	118	<i>Lacloti</i> , <i>Recluz</i>	XXI.	92
Chimmoi, <i>Reeve</i>	XXXVII.	171	lentiginosa, <i>Reeve</i>	XXV.	110
chlorostoma, <i>Broderip</i>	XXII.	94	lineolata, <i>Lamarck</i>	XII.	54
Christovalensis, <i>Reeve</i>	XXXIII.	150	Listeri, <i>Pfiffer</i>	XV.	71
circumvoluta, <i>Recluz</i>	VIII.	35	longispina, <i>Recluz</i>	V.	21
communis, <i>Quoy</i>	XIX.	88	luctuosa, <i>Recluz</i>	XXXV.	162
cornea (<i>Verita</i>), <i>Linnaeus</i>	II.	7	lugubris, <i>Philippi</i>	XXXV.	160
cornuta, <i>Reeve</i>	XIII.	63	lutata, <i>Morelet</i>	XXX.	137
corona (<i>Verita</i>), <i>Linnaeus</i>	VI.	27	Macgillivrayi, <i>Reeve</i>	IV.	16
Crepidularia, <i>Lamarck</i>	VIII.	38	Maeri, <i>Recluz</i>	XXXI.	139
Cuningiana, <i>Recluz</i>	IX.	41	Marchionata, <i>Reeve</i>	III.	12
cuprina, <i>Recluz</i>	XXII.	97	<i>melanostoma</i> , <i>Troschel</i>	VIII.	38
Cuveriana, <i>Recluz</i>	XVIII.	87	melagris, <i>Lamarck</i>	XXV.	112
<i>Dalmatica</i> , <i>Fartel</i>	XXVIII.	125	meridionalis, <i>Philippi</i>	XXXVI.	165

NERITINA.—INDEX.

	Plate.	Species.		Plate.	Species.
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Michaudi, <i>Recluz</i>	XXV.	109	semiconica, <i>Lowarek</i>	VIII.	36
Michouii, <i>Bourgnignarti</i>	XXXVI.	164	seriatilineata, <i>Ziegler</i>	XXXIII.	122
Mitreana, <i>Recluz</i>	XXXIV.	156	serrulata, <i>Recluz</i>	XII.	55
montana, <i>Recluz</i>	VI.	27	siderca, <i>Gould</i>	XXXV.	161
Moreleti, <i>Recluz</i>	XXXVI.	165	Siquijorensis, <i>Recluz</i>	XXXVII.	119
morio, <i>Sowerby</i>	IX.	43	Smithii, <i>Gray</i>	IX.	42
Natalensis, <i>Reeve</i>	XVI.	75	sobrina, <i>Recluz</i>	IX.	40
Navigatoria, <i>Reeve</i>	XXIII.	102	solida, <i>Recluz</i>	I.	2
nebulata, <i>Recluz</i>	XXXI.	141	solidissima, <i>Sowerby</i>	XVI.	77
Nilotica, <i>Reeve</i>	XXXIV.	157	Solomonensis, <i>Reeve</i>	XXXIV.	106
Novo-Caledonica, <i>Reeve</i>	XXIV.	107	Souleyetana, <i>Recluz</i>	XXVI.	115
Numidica, <i>Recluz</i>	XXXVII.	169	Soverbii, <i>Recluz</i>	XX.	89
obscurata, <i>Recluz</i>	V.	23	spinifera, <i>Recluz</i>	XI.	49
obtusa, <i>Beaumont</i>	XXVI.	116	spinosa, <i>Sowerby</i>	XI.	52
olivacea, <i>Le Guillon</i>	I.	2	spiralis, <i>Reeve</i>	XXXIII.	99
Ovalandensis, <i>Recluz</i>	XXXVI.	168	squamipicta, <i>Recluz</i>	I.	4
ovalis, <i>Sowerby</i>	JV.	17	squamosa, <i>Recluz</i>	XII.	56
Oweniana, <i>Gray</i>	XIII.	59	strigillata, <i>Lowarek</i>	VII.	31
Panayata, <i>Sowerby</i>	XXXVII.	172	striolata, <i>Recluz</i>	XXXIII.	100
papillosa, <i>Jay</i>	IV.	18	subauriculata, <i>Recluz</i>	XXVII.	80
Peloponnesus, <i>Recluz</i>	XXXV.	159	subgranosa, <i>Recluz</i>	V.	24
Perrotettiana, <i>Recluz</i>	XXXVIII.	124	subpunctata, <i>Recluz</i>	VI.	26
Petitii, <i>Recluz</i>	II.	5	subsulcata, <i>Sowerby</i>	II.	10
Philippina, <i>Sowerby</i>	XX.	90	Succinea, <i>Recluz</i>	XXXV.	158
picta, <i>Sowerby</i>	XXIII.	101	sulcata, <i>Nyst</i>	XXIII.	84
piparina (<i>Nerita</i>), <i>Chemnitz</i>	IV.	19	Tahitensis, <i>Lesson</i>	XIII.	62
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Powisiana, <i>Recluz</i>	XXI.	76	Toninaensis, <i>Souleyet</i>	VIII.	38
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pulehra, <i>Sowerby</i>	XXV.	111	trifasciata, <i>Meake</i>	XXXII.	147
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reticulata, <i>Quoy</i>	XX.	90	violacea, <i>Morelet</i>	XXXVII.	123
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rostrata, <i>Reeve</i>	XXXIII.	151	viridis, <i>Linn.</i>	XXXIV.	153
Royssiana, <i>Recluz</i>	VII.	31	zabra, <i>Lowarek</i>	IX.	39
rugata, <i>Recluz</i>	XV.	69	zebrina, <i>Recluz</i>	XXXVI.	163
Sandalina, <i>Recluz</i>	XII.	58	zebroides, <i>Lesson</i>	XX.	90
Sandwichensis, <i>Deshays</i>	XVII.	82	zigzag, <i>Lowarek</i>	VII.	29

MONOGRAPH

OF THE GENUS

N A T I C A .

It sees the ocean to its bosom clasp

The rocks and sea-sand with the kiss of peace .

It sees the wild winds lift it in their grasp

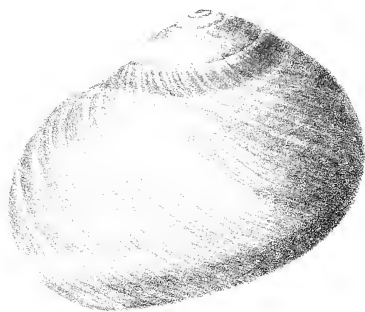
And hold it up, and shake it like a fleece

The startled waves leap over it, the storm

Smites it with all the scourges of the main

And steadily against its solid form

Press the great shoulders of the hurricane * — *Longfellow*



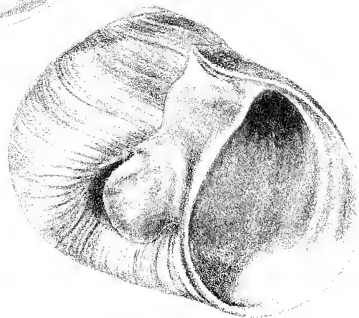
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NATICA.

PLATE I.

Genus NATICA. *Adanson*

*Testa globosa vel orbiculata, introitum apertè rotundè, spirali-
liter, scissimè et cœcè, infractibus fissis, multi-
locis angulata, fovea albis, ante callositate densa im-
pleta, ante callositate columnari spiraliiter introite,
aperturâ pleuroque plus minus lunari. Operculum
interdum testaceum, scissimè concava, spirale.*

Shell globose or nitoid, sometimes openly inflated, spire short, very often scarcely exerted, whorls few, forming a large umbilicus, which is sometimes filled with a dense callosity, sometimes with a columnar callosity entering spirally, aperture generally more or less lunar. Operculum sometimes testaceous, generally horny, spiral.

The comparatively recent discovery that the soft parts of *Natica* are similar to those of *Sigaretus*, required that these genera, which in Lamarck's time were arranged at some distance from each other in the system, should be brought into more immediate relationship. By malacologists, indifferent to the characters of the shell, the *Naticæ* have been removed to the *Sigareti*; but conchologists, unwilling to lose sight of their obvious and long-acknowledged affinity in this respect with the *Nerites*, have caused the *Sigareti* to be removed to the *Neritæna*. It was by the French navigators, MM. Quoy and Gaimard, during the voyage of the 'Astrolabe,' that the animal portion of *Natica* was first fully observed, though figured a century before by Adanson. Differing essentially from that of *Nerita*, it proved to be of very much larger dimensions in proportion to the size of the shell, distinguished by a broad mantle-like expansion of the foot, and characterized by a more or less thickened circular ridge, holding the shell, and sometimes almost concealing it from view. The *Natica* has, moreover, a retractile proboscis, which the *Nerite* has not, and it is of more prodigious habits. The lobe which carries the operculum is also largely developed and reflected over the shell. The animal of *Sigaretus* is of similar structure: and looking alone to its distinctive features of organization, there is little family relationship between it and the typical soft parts of *Neritæna*.

The shells of *Natica* are not particularly variable in form. They are nearly all of the same peculiar semi-globose, lunar-apertured plan of convolution, which is characteristic of the *Nerites*, mostly largely umbilicated, but having the umbilicus sometimes filled up with callous

enamel, and sometimes partially filled with a peculiar spiral columnar callosity. Little, however, as this variation is, the *Naticæ* have been divided into seven genera:—*Natica* proper (*N. canalicata*), *Lunaticæ*, Lamarck (*N. mollifera*), *Neritæna*, Risso (*N. abaraca*), *Isapollina*, Lamarck (*N. brachata*), *Bicon*, Chemnitz (*N. Maurus*), *Maurus*, Klein (*N. auriculata*), and *Naticæna*, Gray (*N. pupilla*). The chief conchological distinction between the genera *Nerita* and *Natica* is, that whilst the *Nerites* are mostly strongly grooved and otherwise sculptured, and richly painted, the *Naticæ* are smooth and polished, as is almost invariably the case with shells more or less enveloped by the soft parts of the animal, and painted, generally with light colours.

The *Naticæ* live mostly in sandy and muddy beaches, at about low-water mark, and are strictly carnivorous. Speaking of a large species, *N. heros*, inhabiting the shores of Massachusetts, Dr. Gould says, in his history of the Invertebrata of that State:—"This, in common with other species of *Natica*, is very voracious, and plays a conspicuous part in devouring the dead fish and other animals which are thrown up by the tide. Many of the shells thrown upon the shore are found to be perforated with a small round hole: this is done principally by the different species of *Natica*. They have the power of perforating shells, it is generally supposed, by discharging an acid which decomposes the shell, and through the aperture they extract the juices, and destroy the lives of the otherwise secure inhabitants. Their foot is very large, so as to completely envelope the objects on which they prey. In moving, they burrow in the sand, so as to be almost entirely concealed by it, and their place is generally indicated by a small heap of sand. The singular mounds in which the animal of *Natica* deposits its eggs has been an object of much curiosity and speculation. It is a mass of sand glued together into the shape of a broad bowl, open at the bottom, and broken at one side. Its thickness is about that of an orange-peel, easily bent without breaking when damp, and when held up to the light will be found to be filled with little cells, arranged in quincunx order. Each of these cells contains a gelatinous egg, having a yellow nucleus, which is the embryo shell."

SPECIES I. (Mus. Cuming.)

NATICA CAMPEACHENSIS. *Nat. testâ umbilicatâ, de-*

presso-globosa, convexa, sutures concava, spiræ parvæ, concavo-depressâ, inflexibus obliquè striatis, superâ convexo-denticibus, debile rotundatis, apertura pyriformi-ovata, horizontali, columella lamellâ, callositate ampla latâ spirali umbilicâ ferè implente; pallidè griseâ, callositate et apertura foveæ castaneo-pallidâ.

THE CAMPEACHY NATICA. Shell umbilicated, depressly globose, thick, convex beneath, spire small, convexly depressed, whorls obliquely striated, concavely slanting at the upper part, then rounded, aperture pyriformly ovate, horizontal, columella rather thin, with a large broad spiral callosity nearly filling the umbilicus; light grey, callosity and interior of the aperture chestnut-brown.

RECLUZ, MS., Mus. Cuming.

Hab. Campeachy Bay, Gulf of Mexico.

This fine species is distinguished from its congeners of the same gigantic dimensions, by its more depressly globose form and flattened spire.

Species 2. (Mus. Cuming.)

NATICA HEROS. *Not. testâ profunde umbilicatâ, quâsa-
tâ rotundâ, lamellâ, inflatâ, spirâ subexsertâ, inflexi-
bus rotundatis, lævigatis, superâ subdepressâ,
jecta saterrima absolute plicatâ-marginata, apertâ si-
suboblongâ; suturâ cæcâ, columellâ, foveæ ferè im-
pletâ, intus foveolate.*

THE HERO NATICA. Shell deeply umbilicated, globose-ly turbinate, rather thin, inflated, spire rather exserted, whorls rounded, smooth, slightly depressed at the upper part, absolutely plicately margined next

the suture, aperture suboblong, dirty ash, covered with a thin fulvous epidermis, interior brownish.

SAY, Journ. Acad. Nat. Sci. Philad. Phila. vol. ii. p. 248.

Hab. Bay of Massachusetts, United States (on sandy and muddy beaches); Gould.

This fine species, distinguished by a rather light, globose form, is very closely allied to *N. duplicata*, so near, indeed, that we have great doubt of its being actually distinct.

Species 3. (Mus. Cuming.)

NATICA RECLUZIANA. *Not. testâ obtusè umbilicatâ, con-
vexo-turbinatâ, crassissimâ, sutures excavato-depressâ,
spirâ subexsertâ, obtusâ, inflexibus lævigatis, superâ
denticibus, inferâ convexis, apertura obliquè contractâ,
columellâ multitudine crassissimâ super umbilicâ, crassi-
effusa; suturâ cæcâ, jectâ saterrimâ absolute fovea-
fusa. Id., callositate castaneo-fuscescente.*

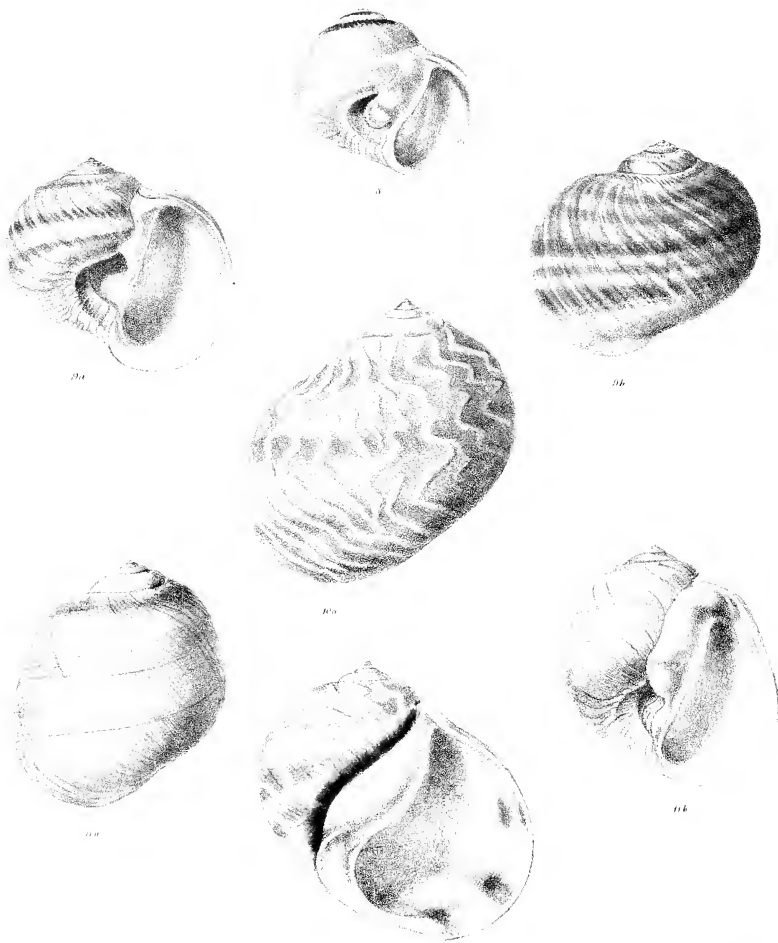
RECLUZ'S NATICA. Shell with a covered umbilicus, conically turbinate, very thick, excavately depressed beneath, spire rather exserted, obtuse, whorls smooth, slanting at the upper part, convex below, aperture obliquely contracted, columella with a very dense callosity thickly reflected back over the umbilicus, dirty ash, obscurely brown-banded next the suture, callosity flesh-brown.

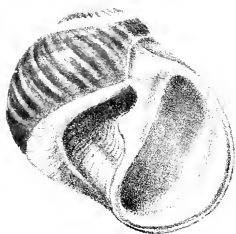
DESHAYES, Mag. de Zool. 1841. Moll. pl. 57

Hab. California; Hinds.

This fine species is remarkably characterized by its heavy growth and monstrous callosity. The shell figured by Dr. Gould at No. 164 of his work on the Invertebrata of Massachusetts as a variety of *N. duplicata* appears to be an immature *N. Recluziana*.







13a



13



13b



14a



12a



14b



15

NATICA.

PLATE IV.

Species 12. (Mus. Cuming.)

NATICA PERSPECTIVA. *Nat. testâ compressâ perspectivè umbilicatâ, oblongo-ovata, spirâ subterhiantâ, obtusâ, angustilobis superiorâ declivi-concavis, dentè rotundatis, levigatis, et minutissimè decessantè striatis, ultimo conspurcè descendente, apertura lunari, columellâ callosâ, præcipuè ad partem superiorem: rosaceo-albâ, umbilico castaneo.*

THE PERSPECTIOUS NATICA. Shell compressly perspectivevly umbilicated, oblongo-ovate, spire slightly turbinated, obtuse, whorls slantingly convex, then rounded, smooth, or minutely decessately striated, last whorl conspicuously descending, aperture lunar, columella callous, especially at the upper part: pink-white, umbilicus chestnut.

RECLUZ, *Petit. Journ. Couch.* vol. 1. p. 379. pl. 14. f. 1, 2.
Hab. Mouth of the Oregon River, Upper California; Lieut. Baskerville.

The chief characteristic of this species consists in its open, compressly perspective purple-chestnut umbilicus, arising from the last whorl being loosely convoluted, and more than usually descending below the other.

Species 13. (Mus. Cuming.)

NATICA CUMINGIANA. *Nat. testâ profundissimè perspectivè umbilicatâ, ovato-ventricosâ, solidiusculâ, spirâ obtuso-conoidâ, apice acutâ, angustilobis levibus, utraque, et minutissimè striatis, ad suturas callosis, dentè declivi-concavis, apertura semilunari, columellâ leviter callosâ-reflectâ; nuxiata et aurantiis-spiculicâ, fasciis duabus albis dilatis spirallibus juxta suturas.*

CUMING'S NATICA. Shell very deeply perspectivevly umbilicated, ovately ventricose, rather solid, spire obtusely conoid, sharp at the apex, whorls smooth, shining, or very minutely striated, callous at the sutures, then slantingly convex, aperture semilunar, columella slightly callously reflected; orange, or orange-fawn, with two spiral infused white bands next the suture.

RECLUZ, *Pro. Zool. Soc.* 1843, p. 210.

Eadem, Natica palliana, Recluz.

Hab. Island of Cuyo, Philippines (in sandy mud, deep water); Cuming.

This fine species is chiefly characterized by its infused

white double sutural band, and deep perspective umbilicus, on the columellar side of which there is only a moderate callosity.

Species 14. (Mus. Cuming.)

NATICA CANRENA. *Nat. testâ subangustè profundè umbilicatâ, subglobosâ, v. atricosâ, spirâ brevi, subprominuatâ, angustilobis levibus, spiculis rotundatis, ultimo anticè subdescendente, apertura semilunari, columellâ callositate aëtheri; reflexulo-castaneâ, zonis pallidis circumgulatâ, zonis strigis nigricante-fuscis nudatis longitudinaliter pictis, basi albâ.*

THE FLAMED NATICA. Shell rather narrowly deeply umbilicated, subglobose, ventricose, spire short, rather prominent, whorls smooth, spirally rounded, the last somewhat descending in front, aperture semilunar, columella with moderate callosity; reddish-chestnut, encircled with pale zones longitudinally painted with zigzag blackish-brown streaks, base white.

LINNEUS, *Mus. Ulr.* p. 674.

Hab. West Indies.

The zigzag-marked bands of this well-known species are sometimes neatly articulated. The operculum is curious in being of a solid testaceous substance circularly grooved.

Species 15. (Mus. Cuming.)

NATICA EFFUSA. *Nat. testâ profundè umbilicatâ, ovato-ventricosâ, spirâ brevissimâ, mamillari, angustilobis concavis, utraque, minutissimè decessantè striatis, ad suturas apuro-callosis, ultimo subangustè, apertura semilunari, columellâ callositate aëtheri; subpellucido-albâ.*

THE EFFUSED NATICA. Shell deeply umbilicated, ovately ventricose, spire very short, mamillary, whorls convex, shining, very minutely decessately striated, opakely callous at the sutures, last whorl rather effused, aperture semilunar, columella with a moderate callosity; subtransparent-white.

SWAINSON, *Zoological Illustrations*, pl. 104.

Hab. Moluccas.

A rather light subpellucid-white effused mamillary species, a little opaque in the sutures.



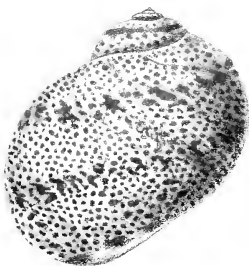
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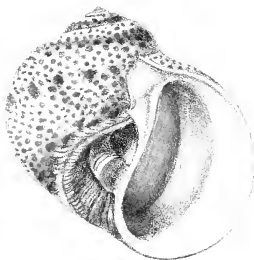
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18a



19a



18b



19b

NATICA.

PLATE V.

Species 16. (Mus. Cuming.)

NATICA PYRIFORMIS. *Nat. testâ obtusè umbilicatâ, oblongo-pyriformi, spirâ parvâ, mammillari, anfractibus supraâ concavo-helicalibus, deinde convexis, albivâ subeffuso, aperturaâ semiannari, columellâ callosâ, callositate lato, umbilicoa implete; nitrate-obscureâ.*

THE PEAR-SHAPED NATICA. Shell with a covered umbilicus, oblong pear-shaped, spire small, mammillary, whorls concavely slanting round the upper part, then convex, the last somewhat effused, aperture semi-lunar, columella callous, callosity broad, filling up the umbilicus; shining ivory-white.

RECLUZ, *Proc. Zool. Soc.* 1843, p. 211.

Hab. Ho Ho, Island of Panay, Philippines (on the sand at low water); Cuming. Mouth of the Huan River, Australia (in sandy mud, ten fathoms); Lieut. Collie.

A polished ivory species, chiefly distinguished by its oblong-pyriform effused growth.

Species 17. (Mus. Cuming.)

NATICA PETIVERIANA. *Nat. testâ apertè umbilicatâ, depresso-orbiculari, subtus concavâ, spirâ brevi, parvâ erectâ, anfractibus convexis, helicalibus, vel micantè decussatis striatis, aperturaâ lunari-orotâ, horizontali, columellâ tenuiâ, callositate prominente spirali solcatâ, umbilico subangulato-excavato; cinereo-griseâ, pallidè cærulescente strigatâ, subtus albâ, callositate et apertura fauce castaneis.*

PETIVER'S NATICA. Shell openly umbilicated, depressly orbicular, concave beneath, spire short, but little exerted, whorls convex, smooth, or minutely decussately striated, aperture lunar-ovate, horizontal, columella rather thin, with a prominent grooved spiral callosity, umbilicus slightly angularly excavated; ash-grey, faintly blue-streaked, whitish beneath, callosity and interior of the aperture chestnut.

RECLUZ, *MS.*, Mus. Cuming.

Hab. Catbalonga, Island of Samar, Philippines (on sand banks at low water); Cuming.

Distinguished from several allied species of the same type, by its compressly orbicular form.

Species 18. (Mus. Cuming.)

NATICA MACULATA. *Nat. testâ umbilicatâ, globosâ, turgidâ, spirâ parvâ erectâ, anfractibus helicalibus, vel obsolète striatis, rotundatis, aperturaâ semiannari, leviter effusâ, columellâ callositate spirali umbilicam implete; livido-albidâ, fulvo-sanguinea maculatâ, umbilico obscure trizonatis, latas rubescens-ridiculis.*

THE SPOTTED NATICA. Shell umbilicated, globose, turgid, spire a little exerted, whorls smooth, or obsoletely striated, rounded, aperture semi-lunar, slightly effused, columella with a spiral callosity entering the umbilicus; livid white, spotted with fulvous-red spots obscurely three-zoned, interior reddish-violet.

DE-HAYES, *Anim. sans vert.* vol. viii. p. 615.

Natica dense maculata, Cuming.

Natica dispersa, Meuke.

Natica millepunctata, rar., Philippi.

Hab. Mediterranean.

The spots of this well-known species are more or less promiscuously blotched, and gather obscurely into three bands.

Species 19. (Mus. Cuming.)

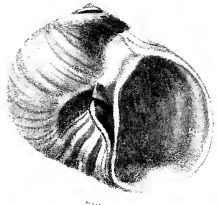
NATICA COLUMNARIS. *Nat. testâ apertè perspective umbilicatâ, ovato-globosâ, ventricosâ, spirâ micantè, vix elevatâ, anfractibus convexis, terigatis, ad suturem cœcugato-striatis, aperturaâ lunari-orotâ, subangulâ, effusâ, columellâ callositate conspicuâ spirali, umbilico latè angulato-excavato; obscureâ.*

THE COLUMNAR NATICA. Shell openly perspective umbilicated, ovately globose, ventricose, spire very small, scarcely raised, whorls convex, smooth, wrinkle-striated at the suture, aperture lunar-ovate, rather large, effused, columella with a conspicuous spiral callosity, umbilicus broadly angularly excavated; ivory-white.

RECLUZ, *Petit. Jour. Conch.* vol. i. p. 394.

Hab. Pasacao, Province of South Camarines, Island of Luzon, Philippines (in sandy mud at six fathoms); Cuming.

A shining white neritoid species, ventricose and effused, with a peculiarly open spirally excavated umbilicus.



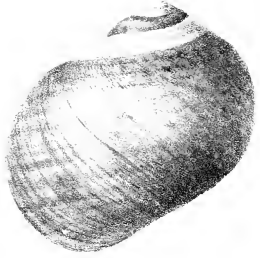
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220

NATICA.

PLATE VI

Species 20. (Mus. Cuming.)

NATICA ALRANTHA. *Nat. testâ obtusè umbilicatâ, oblongo-ovata, crassissimâ, ponderosa, spirâ parvâ, subcallosâ, apice distinctè, anfractibus minutissimè decessantè striatis, superâ convexo-convexis, deinde subplanatulo-convexis, aperturâ parvâ, scissilunari, columellâ callosâ, callositate latâ, umbilicâ implete; cicelâ fulvo-aurantiâ, callositate charact.*

THE ORANGE NATICA. Shell with a covered umbilicus, oblong-ovate, very thick, ponderous, spire small, rather callous, apex distinct, whorls very minutely decessantly striated, concavely slanting at the upper part, then somewhat flatly convex, aperture small, semilunar, columella callous, callosity broad, filling up the umbilicus; bright fulvous orange, callosity ivory-white.

LAMARCK, *Anim. sans vert.* (Deshayes' edit.), vol. viii. p. 622.

Hab. Island of Ticao, Philippines (on the reefs); Cuming.

A shell of very solid ponderous growth, of a brilliant fulvous-orange colour, distinguished by the delicate contrast of the bright ivory-white enamelled callosity, which fills up the umbilicus.

Species 21. (Mus. Cuming.)

NATICA PROBLEMATICA. *Nat. testâ latè apertè umbilicatâ, depresso-subcylindricâ, sublus planatâ, spirâ elevatâ, anfractibus convexis, superâ convexo-convexis et subtiliter plicato-striatis, aperturâ lunari-ovata, horizontali, columellâ callositate parvâ, umbilicâ latissimè excavatâ; glaucoscaerentè, reflexis apicem excavato-ovato, callositate et fovea aperturæ castaneis.*

THE PROBLEMATIC NATICA. Shell broadly openly umbilicated, depressly obicular, flattened beneath, spire scarcely raised, whorls convex, concavely depressed, and finely plicately striated at the upper part, aperture lunar-ovate, horizontal, columella with a small callosity, umbilicus very broadly excavated; glaucous-ash, bluish towards the apex, callosity and interior of the aperture chestnut.

Natica intercardia, Recluz (not of Philippi).

Hab. China.

A depressed glaucous species, bluish towards the apex, but tinged with bright yellow beneath the suture.

Species 22. (Mus. Cuming.)

NATICA POWISIANA. *Nat. testâ apertè obliquè umbilicatâ, ovato-ventricosâ, spirâ brevî, subcallosâ, apice acutâ, anfractibus levibus, nitentibus, superâ subcallosâ, convexis, aperturâ scissilunari, columellâ callositate molliori; cicelâ rubato-pallidivâ, foveâ ciliatâ distinctâ juxta suturam, callositate et columellâ charact.*

POWIS'S NATICA. Shell openly obliquely umbilicated, ovately ventricose, spire short, rather callous, sharp at the apex, whorls smooth, shining, rather callous at the upper part, convex, aperture semilunar, columella with a moderate callosity; bright reddish-fawn, with a distinct yell-yellow band next the suture, callosity and columella ivory-white.

RECLUZ, *Pro. Zool. Soc.* 1843, p. 210.

Hab. Moluccas; Cuming.

This fine species is well characterized by the light band which encircles the whorls next the suture, it being peculiarly distinctly defined.

Species 23. (Mus. Cuming.)

NATICA ALBUA. *Nat. testâ obtusè umbilicatâ, depresso-globosâ, subventricosâ, sublus planatâ, spirâ minutâ, apice acutâ, anfractibus subplanatulo-convexis, pallidis, obsolete subcylindricis, aperturâ lunari-ovata, subaffusâ, columellâ densè callosâ, callositate umbilicâ implete; albato-charact.*

THE WHITE-NATICA. Shell with a covered umbilicus, depressly globose, subventricose, flattened beneath, spire very small, sharp at the apex, whorls somewhat squarely convex, polished, obsolete groove-striated, aperture lunar-ovate, somewhat effused, columella densely callous, callosity filling up the umbilicus; shining ivory-white.

RECLUZ, *Petit. Journ. Conch.* vol. ii. p. 194.

Hab. Tasacao, Province of South Camarines, Island of Luzon, Philippines (in sandy mud at a depth of ten fathoms); Cuming.

A shining ivory-white species, of rather square, effused, inflated growth, with a very small spire, and the umbilicus filled up with callous canal.



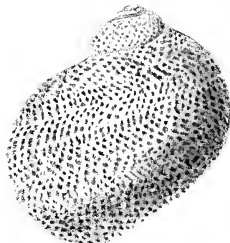
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76a



76b



76c



76d

NATICA.

PLATE VII.

Species 24. (Mus. Cuming.)

NATICA LINEATA. *Nat. testâ umbilicata, globoso-ventricosa, tenuicollâ, spirâ subseriatâ, asfractibus lævigatis, columellâ, apertura semilunari, columellâ tenui, callositate spirali umbilicosa scabundante; liriâ albidâ, liris rufis longitudinalibus, leviter undulatis nudique pictâ.*

THE LINEATED NATICA. Shell umbilicated, globose ventricose, rather thin, spire somewhat exerted, whorls smooth, rounded, aperture semilunar, columella thin, with a spiral callosity, half-closing the umbilicus; livid white, painted throughout with longitudinal, slightly waved red lines.

LAMARCK, *Anim. sans vert.* (Deshayes' edit.), vol. viii. p. 619.

Hab. Singapore (in sandy mud at six fathoms); Cuming.

This elegantly formed species, which is painted throughout with close-set slightly waved red lines, has a particularly columnar spiral callosity. It has also a shelly operculum.

Species 25. (Mus. Cuming.)

NATICA MAURA. *Nat. testâ angustâ subobovate umbilicatâ, ovato-ventricosâ, spirâ parvâ, asfractibus densatim striatis, subquadrato-converis, apertura oblongo-semilunari, subnuda, basi subeffusâ, columellâ tenuiâ eucensâ super umbilicosa recollatâ; nudique intus costatâ.*

THE MOOR NATICA. Shell with a narrow nearly covered umbilicus, ovately ventricose, spire small, whorls densely striated, somewhat squarely convex, aperture oblong-semilunar, rather large, a little effused towards the base, columella with enamelled lamina rolled back over the umbilicus; everywhere deep chestnut.

BRUGIERE, *Encyclop. Méthodique*, pl. 453. f. 4 a, b.

Natica melanostoma, var. *b.* Lamarck.

Hab. San Nicolas, Island of Zebu, Philippines (on the reefs); Cuming.

It may still be doubted whether this species is not a variety of *N. melanostoma*; it is, however, generally of shorter and more square growth, and they are from different localities.

Species 26. (Mus. Cuming.)

NATICA MILLEPUNCTATA. *Nat. testâ latè apertè umbilicatâ, globoso-ventricosâ, spirâ subseriatâ, asfractibus lævigatis, columellâ, ultimo gradatâ descendente, apertura semilunari, columellâ æquali, callositate parvisentâ spirali; latæscens-albâ, punctis rufis confertis nudique pictâ.*

THE THOUSAND-SPOTTED NATICA. Shell broadly openly umbilicated, globose ventricose, spire rather exerted, whorls smooth, rounded, the last gradually descending, aperture semilunar, columella middling, with a rather small spiral callosity; yellowish-white, everywhere pointed with thick-set red dots.

LAMARCK, *Anim. sans vert.* (Deshayes' edit.), vol. viii. p. 636.

Le Mille Points, Favanne.

Natica strepens-nouveau, Enc. Méthodique.

Hab. Méditerranæan.

Distinguished by its characteristic painting of red dots, which in *N. maculata*, of the same typical form, from the same locality, are represented by confused blotches.

Species 27. (Mus. Cuming.)

NATICA MAMILLA. *Nat. testâ obtusè umbilicatâ, subpyriformi-ovata, ventricosâ, spirâ parvâ, asfractibus lævigatis, nitidibus, superâ denticibus, deinde convexis, asfracta ultimo antice descendente, obliquè effuso, apertura semilunari, columellâ densè callosâ, callositate latâ, umbilicosa implete; nudique obscurâ.*

THE NIPPLE NATICA. Shell with a covered umbilicus, somewhat pyriformly ovate, ventricose, spire small, whorls smooth, shining, slanting at the upper part, then convex, last whorl descending in front, obliquely effused, aperture semilunar, columella densely callous, callosity broad, filling the umbilicus; everywhere ivory-white.

LAMARCK, *Anim. sans vert.* (Deshayes' edit.), vol. viii. p. 630.

Nerita mamilla, Linnaeus.

Hab. Island of Lanzon, Philippines (in sandy mud, seven fathoms); Cuming.

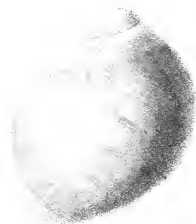
This we take to be the original type of the old Linnaean *Nerita unguilla*.



125a



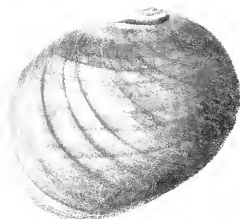
125b



126a



126b



127a



127b



128a

NATICA.

PLATE VIII.

Species 28. (Mus. Cuming.)

NATICA CANDIDISSIMA. *Nat. testâ subobtectè umbilicatâ, globosâ, ponderosâ, spirâ minutâ, viz. elevatâ, apicè distinctâ, anfractibus declivi-converis, deinde rotundatis, minutissimè decussatim striatis, apertura parvâ, obliquâ, semilunari, columellâ densè callosâ; nitentibus albâ.*

THE VERY WHITE NATICA. Shell with a nearly covered umbilicus, globose, ponderous, spire very small, scarcely raised, distinct at the apex, whorls slantingly convex, then rounded, very minutely decussately striated, aperture small, oblique, semilunar; columella densely callous, shell white.

LE GUILLOU, *Revue Zool. Soc. Cuvierienne*, 1842, p. 105. *Hab.* Moluccas.

Of a peculiarly short globose form, the spire being only faintly indicated, although distinctly developed at the apex.

Species 29. (Mus. Cuming.)

NATICA MAMILLARIS. *Nat. testâ subangustè profunde umbilicatâ, conoidè-ovata, crassâ, spirâ subelevatâ, anfractibus superne depresso-declivibus, deinde convexis, minutissimè decussatim striatis, apertura semilunari, porrioscilâ, columellâ callositatè mediocri; fulva-rubescente, basi albâ.*

THE MAMILLARY NATICA. Shell rather narrowly deeply umbilicated, conoidly ovate, thick, spire somewhat raised, whorls depressly slanting at the upper part, then convex, very minutely decussately striated, aperture semilunar, rather small, columella with a moderate callosity; fulvous-red, white at the base.

LAMARCK, *Anim. sans vert.* (Deshayes' edit.), vol. viii. p. 628.

Hab. West Indies.

M. Deshayes has shown, in an elaborate note on this species, that the Linnaean *Natica mamillaris* must refer to a freshwater shell, probably a *Lymnaea*. The shell represented in the accompanying Plate, which Lamarck took for his type, is well figured by Chemnitz.

Species 30. (Mus. Cuming.)

NATICA MELANOSTOMA. *Nat. testâ angustè subobtectè*

umbilicatâ, oblongo-ovata, subperforatâ, tumidâ, spirâ parvâ, anfractibus obliquè rudè striatis, striis minutissimis spiratilibus impressis, anfractu ultimo subeffuso, apertura oblongo-semilunari, subnaphâ, columellâ lamina evanescenti super umbilicem revolutâ; albidâ, carne-fuscescente pallidè latifuscintâ, columellâ et circa umbilicem intensè castaneâ.

THE BLACK MOUTH NATICA. Shell with a narrow nearly covered umbilicus, oblong-ovate, somewhat pear-shaped, swollen, spire small, whorls obliquely rudely striated, impressed with very minute spiral striae, last whorl somewhat effused, aperture oblong-semilunar, rather large, columella with enamelled lamina, rolled back over the umbilicus; whitish, faintly broadly banded with light flesh-brown, columella and round the umbilicus dark chestnut.

LAMARCK, *Anim. sans vert.* (Deshayes edit.), vol. viii. p. 631.

Nerita melanostoma, Gmelin.

Natica opaca, Recluz.

Hab. Sechelle Islands.

Of a swollen, effused, somewhat pear-shaped, ovate form, very faintly dusky flesh-banded, rich dark chestnut on the columellar lamina and region of the umbilicus.

Species 31. (Mus. Cuming.)

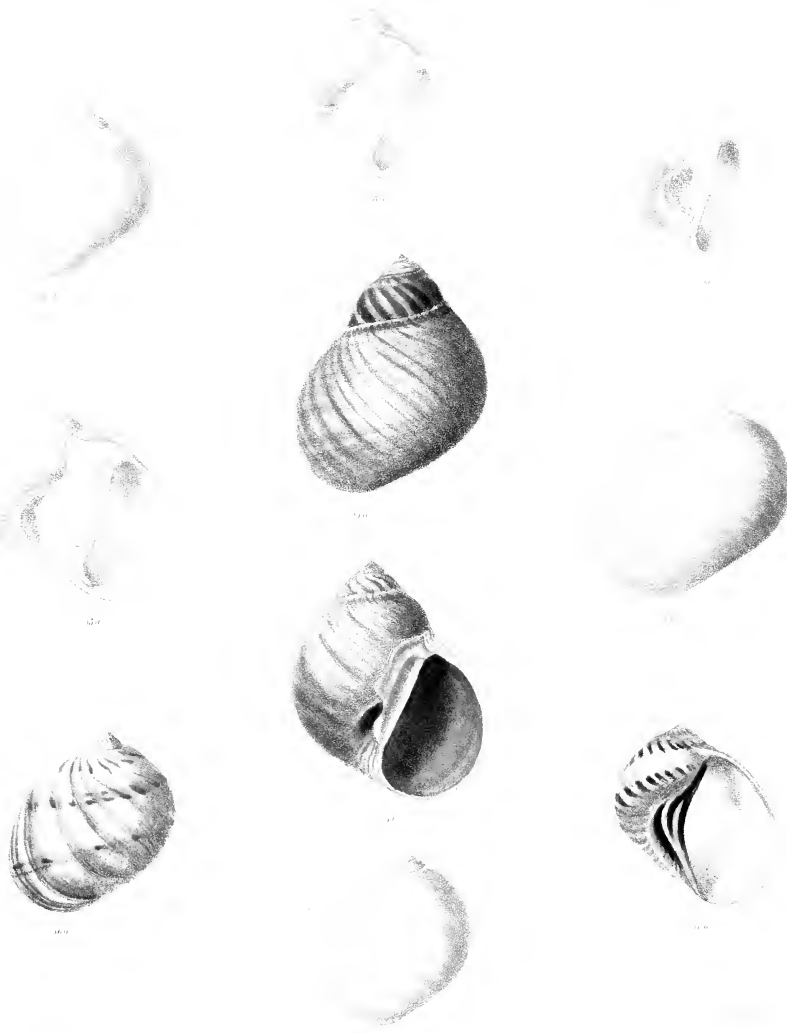
NATICA ALBUMEN. *Nat. testâ perasphiter umbilicatâ, convexo-depressâ, subtilis excavato-planatâ, spirâ minutâ, anfractibus convexis, levigatis, vel minutissimè decussatim striatis, apertura subangustè semilunari, umbilico latè caucliculato, callositatè conspicuâ centrali; aurantio-rubescente, sublus albâ.*

THE ALBUMEN NATICA. Shell very largely umbilicated, convexly depressed, excavately flattened beneath, spire very small, whorls convex, smooth, or very minutely decussately striated, aperture rather narrowly semilunar, umbilicus broadly channelled, with a conspicuous central callosity; orange-red, white beneath.

LAMARCK, *Anim. sans vert.* (Deshayes' edit.), vol. viii. p. 628.

Hab. Catbalonga, Island of Samar, Philippines (in sandy mud at six fathoms); Cuming.

This well-known species is remarkably characterized by its very depressed convex form.



NATICA.

PLATE IX.

Fig 32. (Mus. Cuming.)

This very delicately coloured shell is the var. β , *lutea seu straminea*, of *N. aurantia*, noted by Recluz in Pro. Zool. Soc. 1847, p. 211. It is from Port Essington, north east of New Holland.

Species 33. (Mus. Cuming.)

NATICA ALABASTER. *Not. testâ profundè umbilicatâ, abbreviata-globosâ, ventricosâ, spirâ parvâ, subnullâ, anfractibus levibus, rotundatis, columellâ callosa-rotundâ; ebracâ.*

THE ALABASTER NATICA. Shell deeply umbilicated, shortly globose, ventricose, spire small, rather callous, whorls smooth, rounded, columella callously rolled back; ivory-white.

Hab. Mazatlan.

A pure white species, distinguished by an inflated shortly globose form, with a very small spire.

Species 34. (Mus. Cuming.)

NATICA PLUMBEA. *Not. testâ angustè profundè umbilicatâ, oblongo-turbinatâ, spirâ conoidâ, apice acutâ, anfractibus rudè diagonaliter striatis, ad suturam obsolete plicatis, deinde rotundatis, aperturâ ovatâ, columellâ superâ callosa-encavâ; plumbeo-griseâ, plicis ad suturam reflexivis, margine umbilicis et encavâ columellari cicidè sanguineo.*

THE LEADEN NATICA. Shell narrowly deeply umbilicated, oblong-turbinate, spire conoid, sharp at the apex, whorls rudely diagonally striated, obsolete pucker at the suture, then rounded, aperture ovate, columella callously enamelled at the upper part; leaden-grey, plicæ at the suture reddish, edge of the umbilicus and columellar enamel bright red.

LAMARCK, Anim. sans vert. (Deshayes' edit.), vol. viii. p. 632.

Natica sordida, Swainson.

Hab. Brisbane Water, east coast of Australia; Strange.

This fine species may be readily distinguished by its oblong-turbinate form and leaden-grey colour, the columellar enamel and umbilicus being edged with deep blood-red.

Species 35. (Mus. Cuming.)

NATICA DEIODOSA. *Not. testâ obtectè umbilicatâ, depresso-ovatâ, veritoidâ, spirâ minutâ, laterali, anfractibus tenuistriatis, nitentibus, convexis, ultimo obliquè prolongato, subtus plano, aperturâ semilunari, purensentâ, columellâ densissimè callosâ, callositate umbilicis implente; pallidè stramineâ, callositate ebracâ.*

THE SULPHUR NATICA. Shell with a covered umbilicus, depressly ovate, veritoid, spire minute, lateral, whorls finely striated, shining, convex, the last obliquely prolonged, flattened beneath, aperture semilunar, rather small, columella very thickly callous, callosity filling the umbilicus; pale straw-colour, callosity ivory-white.

Hab. Australia.

This fine species agrees in its delicate tone of colouring with the straw-coloured variety of *N. aurantia* represented at Fig. 32, but is of quite a distinct form, being distinguished by a particularly contracted Nerite-like growth.

Species 36. (Mus. Cuming.)

NATICA PRIAMUS. *Not. testâ compressè angustè umbilicatâ, abbreviata-globosâ, tenuiculâ, inflatâ, spirâ minutâ, laterali, anfractibus convexis, tenuistriatis, nitentibus, aperturâ ovatâ, amplâ, effusâ, columellâ lamina callosâ super umbilicem revolutâ; pallidè leucocastaneâ, spirâlyter zonatâ, maculis brunneis paucis promiscuè cingulatâ.*

THE PRIAMUS NATICA. Shell compressly narrowly umbilicated, shortly globose, rather thin, inflated, spire very small, lateral, whorls convex, finely striated, shining, aperture ovate, large, effused, columella with a callous lamina rolled back over the umbilicus; pale livid chestnut, spirally zoned, encircled with a few promiscuous brown spots.

RECLUZ, Pro. Zool. Soc. 1843, p. 213.

Hab. Moluccas.

A very distinct species, allied to *N. Maura*, distinguished by a pattern of marking somewhat similar to that which is characteristic of the genus *Priamus*.



370a



371a



372a



373a



374a



375a



376a



377a



378a



379a

Species 37. (Mus. Cuning.)

NATICA BACONI. *Nat. testâ obteâe umbilicatâ, abbreviato-trochleari, crassâ, spirâ brevi, obtusâ, anfractibus obliquè densè minutissime striatis, superâe declivibus, ad suturam rotundis et callosis, ad basin rotundatis, aperturâ semilunari, horizontali, columellâ subventi, callositate densè umbilicâna implete; excavato-ovoid.*

BACON'S NATICA. Shell with a covered umbilicus, abbreviated trochlear-shaped, thick, spire short, obtuse, whorls obliquely, densely, very minutely striated, slanting at the upper part, rude and callous at the suture, rounded at the base, aperture semilunar, horizontal, columella rather sharp, with a rude decussate callosity filling the umbilicus; bluish-grey, irregularly pale streaked, white at the base.

Hab. Mouth of the Swan River, New Holland: Dr. Bacon.

A solid trochoid species, of rude structure, of a bluish-grey colour, irregularly interrupted with pale streaks running into the base, which is white.

Species 38. (Mus. Cuning.)

NATICA INTERMEDIA. *Nat. testâ obteâe umbilicatâ, oblongo-globosâ, crassâ, ponderosâ, spirâ parvâ, uncinatâ, anfractibus laevigatis, vitreâs, superâe declivibus, deinde planis-convexis, aperturâ semilunari, columellâ callositate densissimâ, umbilicâna implete; albâ, reflexo-ferreâna tinctâ.*

THE INTERMEDIATE NATICA. Shell with a covered umbilicus, oblong-globose, thick, ponderous, spire small, pointed, whorls smooth, shining, slanting round the upper part, then flatly convex, aperture semilunar, columella with a very thick callosity, filling the umbilicus; whitish, stained with red rust.

PHILIPPI. Kuster Conch. pl. 18. f. 10.

Hab. — ?

This species, of a rather flattened oblong-globose form, with a small pointed spire, is peculiarly stained with red rust.

Species 39. (Mus. Cuning.)

NATICA VITELLUS. *Nat. profunde subanguste umbilicatâ, globosâ, solidiusculâ, spirâ brevi, apice acutâ, anfractibus rotundatis, laevigatis, aperturâ semilunari, columellâ callosâ, excavato super umbilicâna partia recalcitro; ustulato-aureatâ, arenâs albis perparvis promissis interruptâ, columellâ et aperturâ fince albâs.*

THE EGG-YOLK NATICA. Shell deeply, rather narrowly umbilicated, globose, rather solid, spire short, sharp

at the apex, whorls rounded, smooth, aperture semilunar, columella callous, the enamel partially rolled back over the umbilicus; burnt orange, interrupted with a few promiscuous white blotches, columella and interior of aperture white.

LAMARCK. Anim. sans vert. vol. viii. p. 637.

Verisio citellus. Lamarck.

Hab. Island of Ticao, Philippines (on the reefs): Cuning.

This well-known species is always distinctly characterized by its peculiar burnt-orange colouring, interrupted with a few gaps wanting colour.

Species 40. (Mus. Cuning.)

NATICA BIFASCIATA. *Nat. testâ angustè subobteâe umbilicatâ, oblongo-globosâ, spirâ subexsertâ, anfractibus densè minutè striatis, rotundatis, spadicis-ferreocinctis, ad suturam albâs, fasciâs angustâs albâs subdistansibus medio viangulatis, aperturâ oblongo-ovata, columellâ callosâ, excavato super umbilicâna partia recalcitro; excavato columellari latèssè violaceo-convexâ.*

THE TWO-BANDED NATICA. Shell with a narrow nearly covered umbilicus, oblong-globose, spire rather exserted, whorls densely minutely striated, rounded, light fawn brown, white next the suture, encircled round the middle with two narrow, rather distant, white bands, aperture oblong-ovate, columella callous, enamel partially rolled back over the umbilicus: columellar enamel deep violet-chestnut.

GRAY. Griffith's *Cuvier's Animal Kingdom.* pl. 1. f. 2

Hab. Guaymas, Gulf of California (on the sands at low water); Mr. Babb, R.N.

An elegant species, of a characteristic oblong-globose form, distinguished by two linear white bands upon a light fawn-brown ground, the columellar enamel being a deep chestnut.

Species 41. (Mus. Cuning.)

NATICA DUBIA. *Nat. testâ obteâe umbilicatâ, globosâ, crassâ, ponderosâ, spirâ parvâ, suturâ callosâ, indistinctâ, anfractibus rotundatis, pallidâs, aperturâ semilunari, parvâ, columellâ densè callosâ, callositate umbilicâna implete; stramineo-ochraceâ.*

THE DOUBTFUL NATICA. Shell with a covered umbilicus, globose, thick, ponderous, spire small, suture callous, indistinct, whorls rounded, polished, aperture semilunar, small, columella densely callous, callosity filling the umbilicus; straw-tinted ivory.

RECLUZ. Pro. Zool. Soc. 1843, p. 209.

Hab. Chili?

A very solid globular shell, of polished surface, like straw-tinted ivory.



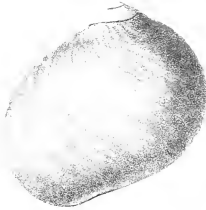
270a



271a



272a



273a



274a



275a



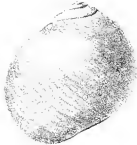
276a



277a



278a



279a

Species 42. (Mus. Cuming.)

NATICA PHYTELEPHAS. *Nat. testâ perniguste profundè umbilicatâ, globosâ, solidiusculâ, spirâ parvâ, apice distincto, anfractibus levibus, et minute decussatim striatis, superâ leviter concavis, diade pluvio-rundatis, aperturâ scailuauri, columellâ callosâ, callositate umbilicâ partim inapente; fulvescente-albâ, subopacâ.*

THE IVORY-NUT NATICA. Shell very narrowly deeply umbilicated, globose, rather solid, spire small, apex distinct, whorls smooth, or minutely decussately striated, slightly concave at the upper part, then flatly rounded, aperture semiunar, columella callous, callosity partially filling the umbilicus; yellowish-white, rather opaque.

Hab. Australia.

A solid, globose, dead-white shell, rather convexly flattened round the upper part of the whorls.

Species 43. (Mus. Cuming.)

NATICA SEPTENTRIONALIS. *Nat. testâ obtusè umbilicatâ, globosâ, levi, inflatâ, spirâ subseriatâ, anfractibus rotundatis, minute decussatim striatis, epidermidè levi fulvâ indutâ, aperturâ subpyriformi-oratâ, columellâ tenuiculâ, callositate albâ parvâ umbilicâ inapente.*

THE NORTHERN NATICA. Shell with a small covered umbilicus, globose, thin, inflated, spire subseriated, whorls rounded, minutely decussately striated, covered with a thin fulvous epidermis, aperture subpyriformly ovate, columella rather thin, with a rather small white callosity filling up the umbilicus.

BECK, Cat. Moll.

Hab. Greenland.

A light inflated species of *Ampullaria*-like form, covered with a very characteristic close, thin, horny-yellowish epidermis.

Species 44. (Mus. Cuming.)

NATICA DRAPARNAUDI. *Nat. testâ spiritaliter umbilicatâ, depresso-globosâ, verruculâ, crassâ, ponderosâ, spirâ parvâ, callosâ, laterali, anfractibus levigatis, nitentibus, superâ leviter concavo-impressis, aperturâ scailuauri, columellâ densè callosâ, umbilicâ spiritaliter angulato, callositate intrante; eiridè vitellivo-arantidi, umbilico et callositate albis.*

DRAPARNAUD'S NATICA. Shell spirally umbilicated, depressly globose, neritoid, thick, heavy, spire small, callous, lateral, whorls smooth, shining, slightly con-

cavely impressed round the upper part, aperture semiunar, columella thickly callous, umbilicus spirally angled, with callosity entering; bright yellowish-orange, umbilicus and callosity white.

RECLUZ, Petit, Jour. Conch. vol. ii. p. 198. pl. 5. f. 11. Hab. Isle of Balicon, Philippines.

A brilliant yellowish-orange neritoid shell, with a peculiar white-angled umbilicus.

Species 45. (Mus. Cuming.)

NATICA PHILIPPANA. *Nat. testâ obtusè umbilicatâ, depresso-globosâ, spirâ pluvio-concavâ, eic elevatâ, anfractibus concavo-declivibus, diade rotundatis, levigatis, politis, aperturâ pyriformi-oratâ, horizontali, columellâ callositate densè rotundatâ; fulvo-roseâ, spirâ arantivo-refâ, callositate et aperturâ foveâ castaneo-rufâ.*

PHILIPP'S NATICA. Shell with a covered umbilicus, depressly globose, spire flatly convex, scarcely raised, whorls convexly slanting, then rounded, smooth, polished, aperture pyriformly ovate, horizontal, columella with a thick rounded callosity; fulvous-ash, spire orange-red, callosity and interior of the aperture chestnut-brown.

RECLUZ, MS., Mus. Cuming.

Hab. Alexandria, Mediterranean.

A highly polished reddish-ash shell, distinguished from *N. glaucum* by its more solid umbilical callosity.

Species 46. (Mus. Cuming.)

NATICA GLOBOSA. *Nat. testâ profundè umbilicatâ, globosâ, spirâ parvâ, anfractibus levibus, antè minutissime decussatim striatis, superâ declivibus, diade concavis, aperturâ scailuauri, columellâ parvâ callosâ; ellâ, apice limbo-aiguinate, foveis latè dilatè helico-cingulatâ.*

THE GLOBOSE NATICA. Shell deeply umbilicated, globose, spire small, whorls smooth, or very minutely decussately striated, slanting at the upper part, then convex, aperture semiunar, columella but little callous; white, apex livid black, encircled with broad dilated blood-red bands.

CHEMnitz, Conch. Cab. vol. v. p. 267. pl. 188. pl. 189. 1897.

Natica holmeca. Lamarck.

Natica spaldica, var., Dillwyn.

Hab. Singapore (in sandy mud at six fathoms). Cuming.

A globose shell, encircled with broad dilated fawn-red bands, leaving the white ground most distinct next the suture.



25a



27a



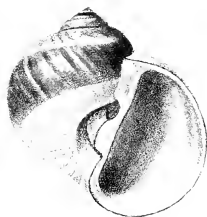
26b



28b



29a



30b



31b



32a



33b



34b

Species 17. (Mus. Cuming.)

NATICA RADULUM. *Nat. testâ angustè profunde umbilicatâ, globosâ, truncatâ, ventricosâ, spirâ parvâ, sub-erecta, apice acutâ, inflexibus rotundatis, aliantis-
sicutè decessantia striatis, apertura lunari-ovata, columella truncatâ, callisâ; opacâ-nitidâ, epidermide stramineâ parvâ involutâ.*

THE LITTLE TURNIP NATICA. Shell narrowly deeply umbilicated, globose, rather thin, ventricose, spine small, slightly exerted, sharp at the apex, whorls rounded, very minutely decessantly striated, aperture linear-ovate, columella rather thin, callous; opaque-white, partially covered with a straw-coloured epidermis.

Hab. Payta, Peru (on mud-banks); Cuming.

A light, opaque-white species, partially covered with a light straw-coloured epidermis, with somewhat the form of an *Ampullaria*.

Species 18. (Mus. Cuming.)

NATICA CONICA. *Nat. testâ angustè parvâ obliquo-umbilicatâ, oblongo-conicâ, solidâ, spirâ magis, erectâ, inflexibus oblique transversis, convexis, infra suturam et presso-concavis, apertura lunari-ovata, columella callisâ, emarginatâ subulnariâ, supra umbilicem rotundatâ; fulco-cinereâ, columella, fuscâ-cinereâ involutâ.*

THE CONICAL NATICA. Shell with a narrow partially covered umbilicus, oblong-conical, solid, spine large, exerted, whorls obliquely finely striated, convex, depressly concave beneath the suture, aperture lunar-ovate, columella callous, enamel rather solid, rolled back over the umbilicus; fawn-ash, columella stained with smoky-chestnut.

LAMARCK, Anim. sans vert. (Deshayes' edit.), vol. viii. p. 632.

Hab. Australia.

Characterized chiefly by its conically turbinate form, and by the smoky-chestnut tinge of the columellar enamel.

Species 19. (Mus. Cuming.)

NATICA UNIFASCIATA. *Nat. testâ umbilicatâ, ventricosâ-globosâ, spirâ sub-erectâ, apice acutâ, inflexibus minute decessantia striatis, rotundatis, supra et infra impressis, apertura lunari-ovata, effusâ, columella truncatâ, callisitate spirâ umbilicem fere implente; cin-lavacri-cinereâ, fasciâ albââ linearâ supra umbilicem circumulatâ.*

THE ONE-BANDED NATICA. Shell umbilicated, ventricosely globose, spine rather exerted, sharp at the apex, whorls minutely decessantly striated, rounded, slightly depressed at the upper part, aperture lunar-ovate, effused, columella rather thin, with a spiral callosity nearly filling the umbilicus; violet-ash, encircled with a whitish linear band above the middle.

LAMARCK, Anim. sans vert. (Deshayes' edit.), vol. viii. p. 630.

Hab. Bay of Panama (on mud-banks at low water); Cuming.

This species has, particularly, the form and general aspect of an *Ampullaria*. It has a shelly operculum.

Species 50. (Mus. Cuming.)

NATICA MIMIFERA. *Nat. testâ angustè profunde umbilicatâ, globosâ, subventricosâ, spirâ erectâ, apice acutâ, suturâ linearis-impressâ, inflexibus rotundatis, levigatis, apertura lunari-ovata, columella levè callisâ; fulco-glaucoscutâ, superiè unguis spinulosè serie nuda circumulatâ.*

THE NINE-BLACE-MARKED NATICA. Shell narrowly deeply umbilicated, globose, subventricose, spine exerted, sharp at the apex, with the suture linearly impressed, whorls rounded, smooth, aperture lunar-ovate, columella thinly callous; pale yellowish-glaucous, encircled at the upper part with a single row of pale fawn spots.

LAMARCK, Anim. sans vert. (Deshayes' edit.), vol. viii. p. 638.

Nitida glaucina, Pennant (not of Linnaeus).

Nitida calvata, De Costa.

Natica costana, Lamarck.

Natica squallida, Macgillivray.

Hab. European seas.

Well characterized by the necklace of fawn-red spots which encircles the whorls next the suture.

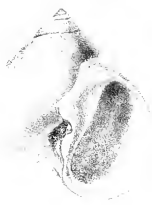
Species 51. (Mus. Cuming.)

NATICA LEUCOPILLA. *Nat. testâ subangustè profunde umbilicatâ, globoso-contraicosa, spirâ breviusculâ, ob-testâ, inflexibus rotundatis, ob suturam obsolete plicatis, apertura pyriformi-ovata, columella callisâ, emarginatâ supra umbilicem crenatâ; planchis-griseis, infra suturam infâ lineâ, labro et cinctura columellari sanguineo-erectis.*

THE GREY NATICA. Shell rather narrowly deeply umbilicated, globosely ventricose, spine rather short, obtuse, whorls rounded, faintly plicated at the suture, aperture pyriformly ovate, columella callous, enamel rolling back over the umbilicus; leaden-grey, stained with red beneath the suture, lip and columellar enamel red.

Hab. Australia.

A very characteristic leaden-grey shell, of light *Ampullaria*-like form, stained with blood-red along the edge of the lip and columellar enamel, and round the upper edge of the whorls next the suture.



NATICA.

PLATE XIII

Species 52. (Mis. Cuming.)

NATICA VALENCIENNES. *Nat. test. nuda, ovali, glaberrima, subinflata, spir. exserta, apert. orbiculi, columella, rather thin, with a columnar spiral callosity nearly filling the umbilicus; greyish-white, or dirty red, encircled more or less indistinctly with five rows of arrow-headed fawn-brown spots.*

THE MORE CO. NATICA. Shell umbilicated, globosely ventricose, spire rather exserted, whorls smooth, rounded, aperture lunato-ovate, subinflated, columella rather thin, with a columnar spiral callosity nearly filling the umbilicus; greyish-white, or dirty red, encircled more or less indistinctly with five rows of arrow-headed fawn-brown spots.

VAL. ZEBRA, Anna, sans vert vol. VII. p. 112.

Nat. in Cuvier's Atlas, Menke (not of Recluz)

Hab. North Africa and West Indies.

This species is always characterized by being encircled with bands of arrow-headed spots, but they are often much obscured.

Species 53. (Mis. Cuming.)

NATICA ZEBRA. *Nat. test. nuda, ovali, glaberrima, subinflata, spir. exserta, apert. orbiculi, columella, rather thin, with a columnar spiral callosity nearly filling the umbilicus; white, densely longitudinally painted with narrow, sharply zigzag red streaks.*

THE ZEBRA NATICA. Shell undulate, globosely ventricose, rather inflated, spire of dusky exserted, whorls smooth, shining, slanting to the upper part, then rounded, aperture lunato-orbicular, columella thin, with a spiral columnar callosity nearly filling the umbilicus; white, densely longitudinally painted with narrow, sharply zigzag red streaks.

LAMARCK, Anna, sans vert. (Lamarck's edit.), vol. VIII. p. 643.

Hab. Cebu, Province of Misamis, Island of Mindanao, Philippines (in sandy mud at twenty-five fathoms), Cuming.

The longitudinal zigzag red streaks which distinguish

this species are more narrow and close-set, now broader and more distinct.

Species 54. (Mis. Cuming.)

NATICA CBER. *Nat. test. subanguste umbilicatâ, oblongo-turbinatâ, subinflata, spir. exsertâ, apert. orbiculi, columella, rather thin, with a columnar spiral callosity nearly filling the umbilicus; white, densely longitudinally painted with narrow, sharply zigzag red streaks, sometimes flowing together.*

THE FLAT NATICA. Shell rather narrowly umbilicated, oblong-turbinated, rather solid, spire exserted, whorls very minutely denticately striated, slanting round the upper part, then convex, aperture lunato-oblong, columella densely enamelled, with a small callosity white, covered with a very thin epidermis.

VALENCIENNES, in Obs. Geol. Humboldt, 1833, vol. II. p. 266.

Hab. Callao, Peru (in muddy sand at four fathoms), Cuming.

This, I believe, is the true *Natica* of Valenciennes collected by Humboldt, and the same species as that collected by D'Orbigny in the same locality, although the specimen figured by the latter is of rather different proportions.

Species 55. (Mis. Cuming.)

NATICA PELLIS-TIGRINA. *Nat. test. solida, glabra, perspectiva, subinflata, spir. exserta, apert. orbiculi, columella, rather thin, with a columnar spiral callosity nearly filling the umbilicus; white, densely longitudinally painted with narrow, sharply zigzag red streaks, sometimes flowing together.*

THE TIGER'S SKIN NATICA. Shell rather largely perspectiveily umbilicated, globose, spire exserted, sharp at the apex, whorls somewhat depressed at the upper part, then convex, smooth, aperture lunato-ovate, rather obtuse, columella callous at the upper part, with a small columnar spiral callosity encircling the umbilicus; whitish, densely painted with red-purple spots, sometimes flowing together.

CREMNIER, Cuv. Cab. vol. V. p. 265, pl. 187, f. 1892 and 1893.

Natica carolinaria, Recluz.

Hab. Swan River (in sandy mud at ten fathoms); Dr. Collic, R.N.

This pretty species is distinguished by a pattern of dark purple-red spots, quite distinct in character from that of *N. uncinata*.

Species 56. (Mus. Cuming.)

NATICA RAYNAUDIANA. *Nat. testâ subobovata multilocatâ, globosâ, crassiusculâ, spirâ parvâ exsertâ, anfractibus laevigatis, superâ declivibus, deinde columbatis, apertura lunari-ovata, columellâ densè cinctâ, cavitate umbilicaria parvâ obliquâ; diluâ nuchalifalvi, strijs infusiformis irregulariter reticulatis promiscuè fuscatis pictâ.*

RAYNAUD'S NATICA. Shell with a nearly covered umbilicus, globose, rather thick, spine but little exerted, whorls smooth, slanting at the upper part, then rounded, aperture lunar-ovate, columella thickly enamelled, enamel partially covering the umbilicus; pale orange-fulvous, promiscuously painted with irregularly netted streaks of reddish-chestnut bands.

RECLUZ, *Pro. Zool. Soc.* 1843, p. 212.

Hab. Zanzibar. T. Thorn. Esq.

A solid orange-tinted shell, banded with very characteristic chestnut net-streaked markings, first collected at Trincomalee, Bay of Ceylon, by M. Raymond.

Species 57. (Mus. Cuming.)

NATICA MACULOSA. *Nat. testâ angustâ multilocatâ, globosolobovata, spirâ conico-exsertâ, anfractibus columbatis, apertura lunari-ovata, columellâ levè cinctâ cavitate parvâ columari spirali, albâ, punctis purpureo-fuscis densè pictâ, anfractibus superâ et inferâ maculatâ.*

THE FULL-SPOTTED NATICA. Shell narrowly umbilicated, globose turbinate, spine conically exerted, whorls rounded, aperture lunar-ovate, columella thinly enamelled with a small spiral callosity—white, densely crowded with purple-brown dots, whorls at the upper and lower edge un-spotted.

LAMAREK, *Anim. sans vert.* (Deshayes' dit.) vol. viii. p. 641.

Hab. Singapore (in sandy mud at six fathoms); Cuming.

M. Deshayes is wrong in assigning this species to the *N. pellis-lygia* of Chemnitz, which is that represented in the accompanying Plate at Fig. 57.



671



672



673



674



675



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Species 58. (Fig. a, b, c, Mus. Cuming.)

NATICA MAHEENSE. *Nat. testâ umbilicata, globosâ, spirâ subexsertâ, suturâ impressâ, anfractibus rotundatis, laevigatis, juxta suturam peculiariter oblique plicato-corrugatâ, aperturâ lunari-oratâ, columellâ superâ callosâ, callositate columnari spirali umbilicis senariis interruptis latereptis cingulatâ.*

THE MAHE NATICA. Shell umbilicated, globose, spire a little exserted, suture impressed, whorls rounded, smooth, peculiarly obliquely plicately wrinkled next the suture, aperture lunar-ovate, columella callous at the upper part, with a columnar spiral callosity half filling the umbilicus; white, encircled with two interrupted bands of rust-fawn blotches.

REULIZ, MS., Mus. Cuming.

Hab. Island of Mahe, Seychelles.

A very characteristic species, encircled beneath the suture with obliquely plicated wrinkles.

Species 59. (Mus. Cuming.)

NATICA FOENSKALII. *Nat. testâ subapertè perspectivè umbilicatâ, globosâ, subrotundicatâ, spirâ breviter exsertâ, anfractibus rotundatis, laevibus, juxta suturam plicato-striatis, aperturâ lunari-oratâ, columellâ superâ callosâ recurvâ; albâ, strigis ferrugineo-purpureis ovalis fasciâ albâ interruptis nuplique pictâ.*

FOENSKAL'S NATICA. Shell rather openly perspective-umbilicated, globose, subcentric, spire shortly exserted, whorls rounded, smooth, plicately striated next the suture, aperture lunar-ovate, columella callously recurved at the upper part; white, marked throughout with longitudinal rust-fawn streaks, leaving a white band in the centre.

Natica Foenkalii, Chemn. Couch. Cab. vol. xi. pl. 197. f. 1901 and 1902.

Hab. —?

Resembling the preceding species, but distinct in all its detail of character. The suture of the spire is not similarly impressed, the plicated striae are very different from the wrinkles, and the umbilicus is not obscured by any winding columnar callosity.

Species 60. (Mus. Cuming.)

NATICA ALA-PAPILLONIS. *Nat. testâ ampliter umbilicatâ, subglobosâ, spirâ exsertâ, suturâ impressâ, anfractibus laevigatis, rotundatis, superâ depressâ et plicato-corrugatâ.*

rugatis, altâto nulla effusa, columellâ superâ callosâ, callositate columnari spirali umbilicis intrante; sordido-caraco, zonis quatuor albis ovalibus quadratis purpureis distinctibus rittatis cingulatâ, callositate albâ.

THE BUTTERFLY-WING NATICA. Shell largely umbilicated, subglobose, spire exserted, suture impressed, whorls smooth, rounded, depressed and plicately wrinkled at the upper part, last whorl much effused, columella callous at the upper part, with a columnar spiral callosity entering the umbilicus; fawn-flesh tinged, encircled with four white zones, filled with distant square purple spots, callosity white.

Natica ala-papillonis, Chemnitz, Couch. Cab. vol. v. p. 257. f. 1868 to 1871.

Natica zanzibarica, Lamarek, De Blainville

Eadem, *Natica exarata*, Reuliz.

Hab. San Nicolas, Island of Zebu, Philippines (in sands mud at ten fathoms); Cuming.

Well distinguished by its dark purple filiceted zones and effused aperture.

Species 62. (Fig. 61 and 62, Mus. Cuming.)

NATICA FULMINEA. *Nat. testâ perspectivè umbilicatâ, globosâ, solidâ, spirâ brevi, subimpressâ, anfractibus rotundatis, juxta suturam sordide plicato-striatis, aperturâ lunari-oratâ, columellâ superâ late callosâ; albâ, strigis acutè nudatis rufo-fuscis irregularibus densè longitudoinaliter pictâ.*

THE LIGHTNING-MARKED NATICA. Shell perspective-umbilicated, globose, solid, spire short, somewhat impressed, whorls rounded, rudely plicately striated next the suture, aperture lunar-ovate, columella broadly callous at the upper part; white, densely longitudinally painted with irregular zigzag red-brown streaks.

LAMARCK, Anim. sans vert. (Deshayes' edit.), vol. 3. p. 641.

Natica fulminea, Gmelin.

Natica areolaris, Gmelin.

Natica areolaris, Lamarek.

Natica venulata, Lamarek.

Natica punctata, Swainson.

Natica bifasciata, Reuliz.

Natica Senegalensis, Reuliz.

Natica Bancaguanii, Reuliz.

Hab. Senegal.

Of this species, from Senegal, varying more or less in its markings of dots, blotches, and zigzag lines, but many spurious species have been made.



62 a



63 a



64 b



65 a



66 a



67 b



68 b



69 a



70 b



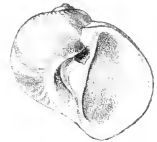
71 a



63-c



67-a



68-b



70-a



71-a



72-d



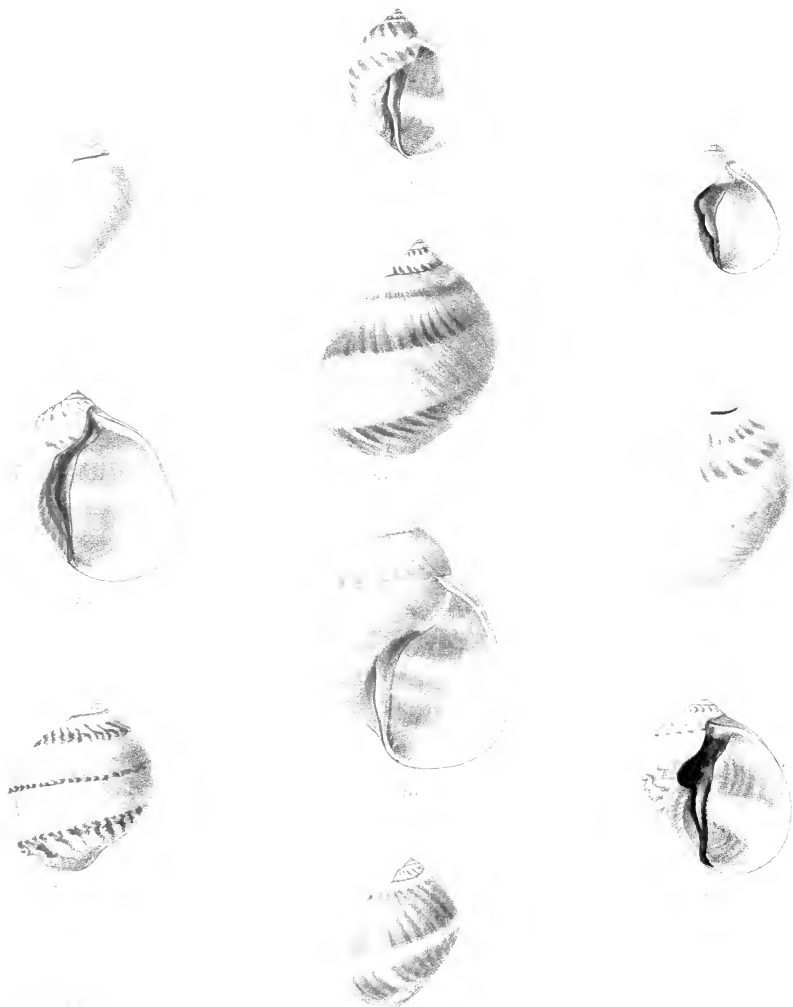
73-a



74-a



75-a



NATICA.

PLATE XVII.

Species 72. (Mus. Cuming.)

NATICA FILIXA. *Nat. testâ subanguste umbilicatâ, compresso-ovata, Sigaretæ hui, spirâ brevi, acuminatâ, infractibus declivissimis, nervata longitudinaliter striatâ, striâ vinctâ superius umbilicis spirâllis decessatâ, infracta aliam inflata, aperturâ magna, columellâ sublatè reflectâ; albâ, fasciis duabus latè dilutè ferrugineo-fuscis cingulatâ, concolâ purpureo-asperulate.*

THE THREAD-MARKED NATICA. Shell rather narrowly umbilicated, compressly ovate, inflated. Sigaretus-shaped, spire short, acuminated, whorls slantingly convex, areately longitudinally striated, decessated with minute, waved, spiral, impressed striae, last whorl large, inflated, aperture large, columella rather broadly reflected; white, encircled with two broad, dilute, rust-brown bands, columella purple-black.

LOWERY, MSS., Mus. Cuming

Hab. ———?

This species, belonging to the group of *Natica*, partaking mostly of the character of *Sigaretus*, is distinguished by its decessated thread-like sculpture.

Species 73. (Mus. Cuming.)

NATICA SUCCEINOIDES. *Nat. testâ anguste albâ umbilicatâ, compresso-ovata spirâ brevi, acuminatâ, infractibus al'is plicato-striatis, superius concavo-convexis, declivè pinnato-striatis, infracta aliam inflata, aperturâ magna, basi subfissâ, columellâ plicato-reflexâ, umbilicâ levitate; albâ, epidermide tenui intata, columellâ et area umbilicâ purpureo-nigris.*

THE SUCCEINEA-LIKE NATICA. Shell with a narrow covered umbilicus, compressly ovate, spire short, acuminated, whorls obliquely plicately striated, concavely slanting at the upper part, then flatly convex, last whorl inflated, aperture large, rather effused at the base, columella flatly reflected at the back, covering the umbilicus; white, covered with a thin epidermis, columella and umbilical area purple-black.

Hab. Pasarea, Island of Luzon, Philippines (in sandy mud at ten fathoms): Cuming.

A delicate white species, having the characteristic form

of *Sigaretus*, with the rich purple-black stained columella broadly reflected and pressed down upon the umbilicus.

Species 74. (Fig. a, Mus. Cuming. Fig. b, Mus. Taylor.)

NATICA SERRE. *Nat. testâ anguste umbilicatâ, oblongo-ovata, leviculâ, spirâ parvâ, acuminatâ, infractibus leviter convexis, tenui plicato-striatis, striis vinctissimis spirâllis impressis decessatis, infracta aliam inflata, aperturâ magna, subquadrato-ovata, columellâ breviusculâ, superius latè appressâ; pollicido-albâ, foveâ lateraliâ obscurâ foveatâ, epidermide foveâ intata, columellâ rubro-fuscâ.*

SERRE'S NATICA. Shell narrowly umbilicated, oblong-ovate, rather thin, spire small, acuminated, whorls slightly convex, finely plicately striated, striae decessated with spiral, very minute, impressed striae, last whorl much inflated, aperture large, somewhat squarely ovate, columella rather short, broadly appressed at the upper part; transparent white, sometimes obscurely hatched with brown, covered with a fulvous epidermis, columella violet-brown.

Serrey, Voyage de la Bonite, pl. 35, f. 6, 7.

Hab. San Nicolas, Island of Zebu, Philippines (under stones): Cuming.

A fine bold species, the largest and most inflated of the *Sigaretus*-like group.

Species 75. (Mus. Cuming.)

NATICA ZANZIBARICA. *Nat. testâ subultrivè umbilicatâ, compresso-quadrato-ovata, spirâ minutâ, infractibus longitudinaliter plicato-striatis, striis vinctissimis impressis spirâllis decessatis, infracta aliam pinnatâ, inflata, aperturâ quadrato-ovata, intata, columellâ latè reflectâ, umbilicâ foveâ levitate; albâ, foveâ foveâ lateraliâ obscurâ cingulatâ, epidermide foveâ intata, columellâ et area umbilicâ appressato-striatis.*

THE ZANZIBAR NATICA. Shell with a nearly covered umbilicus, compressly quadrately ovate, spire very small, whorls longitudinally plicately striated, striae decessated with very minute spiral impressed striae, last whorl very large, inflated, aperture squarely ovate, open, columella broadly reflected back, nearly covering the umbilicus; white, obscurely encircled

with a brown interrupted band, covered with a fulvous epidermis, columella and umbilical area blackish-chestnut.

RECLUZ, Pro. Zool. Soc. 1843, p. 213.

Hab. Zanzibar; Thora.

Distinguished chiefly from the other species of the group by its square and more open form and minute spire.

Species 76. (Mus. Cuming.)

NATICA SIMILE. *Nat. testâ obtusè umbilicatâ, oratâ, spirâ brevi, anfractibus declivi-concavis, minute plicato-striatis, subnubilibus, aperturâ oblongo-ovata, columellâ latè reflexâ, umbilicem ferè tegente; cærulescente-albâ, maculis nudatis rufescente-castaneis, bizonatiâ, in-*

terdua trizonatiâ, ciangulatâ, columellâ nigricante-castaneâ.

THE MONKEY NATICA. Shell with a nearly covered umbilicus, ovate, spire short, whorls slantingly convex, minutely plicately striated, rather shining, aperture oblong-ovate, columella broadly reflected, nearly covering the umbilicus; bluish-white, encircled with two, sometimes three, zones of waved reddish chestnut spots, columella blackish-chestnut.

DESHAYES, Anim. sans vert. vol. viii. p. 552.

Ruwa Suwâ, Chemnitz.

Eadem, *Natica Sivaoides*, Recluz.

Hab. Philippine Islands.

Distinguished by its bands of waved reddish chestnut-streaked spots and shining surface.



27a



28a



29a



29b



30a



30b



31a



32a



32b



33a

NATICA.

PLATE XVIII.

Species 77. (Mus. Cuming.)

NATICA IMPERFORATA. *Nat. testâ obtusè umbilicatâ, glaberrimâ, solidâ, spirâ subexsertâ, obtusâ, inflexionibus superâe subconvergentia pressis, debile constrictis, aperturâ perrimè subconvergentia pressis, debile constrictis, columella tenui, callositate densè callusâ, callositate luteo expansâ, umbilicis simpliciter; lenticulis, flavis brevibus rufis infra suturam cingulatâ, debile parvis rufis utroque asperis.*

THE IMPERFORATED NATICA. Shell with a covered umbilicus, globose, solid, spire somewhat exserted, obtuse, whorls somewhat concavely impressed round the upper part, then convex, aperture semilunar, columella densely callous, callosity broadly spread, filling up the umbilicus; livid-white, encircled beneath the suture with short red flames, then everywhere sprinkled with red dots.

SWINSON, Zool. Bechley's Voyage, p. 135, pl. 31, f. 1.
Hab. Buffalo, Cape of Good Hope.

A very distinct solid species, encircled beneath the suture with a characteristic fringe of irregular red flames, the remainder of the shell being freckled with dots of the same colour. The callosity thickly overspreads the umbilicus.

Species 78. (Mus. Cuming.)

NATICA MELANTOMA. *Nat. testâ obtusè umbilicatâ, ovali, sublex planiusculâ, spirâ obtusâ, inflexionibus superâe saepe oblique convergentibus, obliquè striatis, strâs fere obsolis, aperturâ ovali, columellâ luteo callusâ, callositate umbilicis claudicatâ; lenticulis, callositate asperis.*

THE BLACK-MOUTH NATICA. Shell with a covered umbilicus, ovate, rather flattened beneath, spire obtuse whorls faintly concavely excavated round the upper part, obliquely striated, striae almost obsolete, aperture ovate, columella broadly callous, callosity overspreading the umbilicus livid-ash, callosity blood-red.

SWINSON, Zool. Illus. 1st Series, pl. 79.

Natica saepe ovata, Deshayes.
Hab. Mouth of the Brisbane River, Australia.

The umbilicus of this species is entirely overspread by a delicate blood-stained callosity.

Species 79. (Mus. Cuming.)

NATICA FANTOSIGMA. *Nat. testâ suboblate usque ovata, glaberrâ, subinflata, spirâ subexsertâ, apice ovali, inflexionibus rotundatis, obsolete plicato-striatis, aperturâ ovali-convergenti, columellâ luteo, umbilicis parvis, callositate fere completa; lenticulis, brevibus rufis infra suturam cingulatâ, debile parvis rufis utroque asperis.*

THE VIOLET-MOTTED NATICA. Shell with a nearly covered umbilicus, globose, somewhat inflated, spire

rather exserted, sharp at the apex, whorls rounded, obsolete plicately striated, aperture ovately ear-shaped, columella thin, umbilicus small, nearly filled with the callosity; fulvous-brown, aperture stained with violet.

DESHAYES, Guerin's Mag. de Zool. pl. 15.
Hab. Kaitschanka.

There is but a faint tinge of violet in the specimen of this species here figured, but the colour is well shown in the original figure of M. Deshayes.

Species 80. (Mus. Cuming.)

NATICA FLEMINGIANA. *Nat. testâ umbilicis perrimè, pyriformi-ovali, crassissimâ, solidâ, spirâ subexsertâ, obtuse callusâ, inflexionibus superâe callosis, lenticulis, aperturâ subovalari, perrimè ovali, columellâ superâe densè callusâ; a sutura utriusque.*

FLEMING'S NATICA. Shell with a rather small umbilicus, pyriformly ovate, very thick solid, spire rather exserted, obtusely callous, whorls slanting at the upper part, smooth, aperture semilunar, rather small, columella densely callous at the upper part everywhere shining ivory-white.

RECOLL. Proc. Zool. Soc. 1843, p. 209.

Hab. Sapsagon, Isle of Luzon, Philippines, among sand and small stones; Cuming.

A very solid, shining, ivory-white shell of peculiar form and character.

Species 81. (Mus. Cuming.)

NATICA STENGEL. *Nat. testâ subanguste perspective umbilicatâ, glaberrimâ, spirâ subexsertâ, inflexionibus superâe saepe oblique convergentibus, obliquè plicato-striatis, debile rotundatis, lenticulis, aperturâ pyriformi-ovalari, columellâ superâe luteo callusâ, subconvergenti, fossâ angustâ sanguinea infra suturam, apice conchoscissâ, areâ umbilicis luteo et sanguineo callositate circuli sanguinis.*

STENGEL'S NATICA. Shell rather narrowly perspective-umbilicated, globose ovate, spire somewhat exserted, whorls faintly concavely excavated round the upper part, and obliquely plicately striated, the rounded and smooth, aperture pyriformly linear, columella broadly callous at the upper part; livid-ash with a narrow blood-red band beneath the suture, apex blue-black, umbilical area, lip, and edge of the callosity bright blood-red.

Hab. Port Jackson, South Australia (on mud banks); Strange.

A solid species, allied to *N. perrima*, of a delicate blue or livid-ash colour, stained with deep blood-red round the aperture and within the umbilical area, with a lighter band of the same colour beneath the suture.



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Species 82. (Mus. Cuming.)

NATICA CHINENSIS. *Nat. testâ subglobosâ umbilicatâ, semiglobosâ, spirâ brevi, suturâ impressâ, angustè emarginatâ, apice acuto, angustibus saepeâ plicatis striatis, deinde laevibus, concoloris, aperturâ semilunari, subfissâ, nâbilicâ acuta, callositatè latâ semitransversâ; albâ, maculis castaneis subquadratis distinctibus renantè circumscriptâ, epidermide laevi indurâ.*

THE CHINESE NATICA. Shell with a nearly covered umbilicus, semiglobous, spire short, suture impressed, narrowly channelled, apex sharp, whorls plicately striated round the upper part, then smooth, convex, aperture semilunar, somewhat effused, umbilicus large, half-filled with a broad callosity; white, remotely encircled with distant, somewhat square chestnut spots, covered with a thin epidermis.

LAVAGNA, Anim. sans vert. vol. vii. p. 641.

Hab. China and Philippine Islands.

This species is chiefly distinguished by the distinct square-like character and distant arrangement of the spots.

Species 83. (Mus. Cuming.)

NATICA ANDANONI. *Nat. testâ angustè perspicuè umbilicatâ, subglobosâ, spirâ modicâ, apice acuto, angustibus saepeâ plicatis et oblique striatis, deinde levibus, laevibus, lustrâ crassa sublaevibus, aperturâ subangustè semilunari, nâbilicâ callositatè parvâ; clavatâ; castaneâ, punctis rufis multâ resparsâ, maculis castaneis saepeâ ovatis, callositatè rufâ.*

ANDANON'S NATICA. Shell largely perspectively umbilicated, subglobous, spire moderate, sharp at the apex, whorls flattened and obliquely striated at the upper part, then rounded, smooth, slightly attenuated towards the base, aperture rather narrowly semilunar, umbilicus with a slightly raised callosity; flesh-white, everywhere sprinkled with red dots, and encircled with two obscure bands of blotches, callosity red.

Hab. Etouâ, Adanson.

Nat. v. Etouâ, Bredaz.

Hab. East and west coasts of Africa.

The name given to this species by the old French conchologist of Senegal cannot be strictly used in a Latin form of nomenclature. It is always distinct both in form and colouring from the allied species of Senegal, and includes also Zanzibar.

Species 84. (Mus. Cuming.)

NATICA JUKESII. *Nat. testâ umbilicatâ, globosâ acrobilicâ, subobliquâ, crassâ, spirâ minutâ, cæ clavatâ, angustibus concoloris, pallidis, aperturâ semilunari, plicatâ, columnâ latè callusâ, nâbilicâ perspicuè; maculis nitidis obscurâ.*

JUKES' NATICA. Shell umbilicated, globosely acroitic, very solid, thick, spire minute, scarcely elevated, whorls convex, polished, aperture semilunar, rather small, columnella broadly callous, umbilicus perspective, everywhere shining ivory-white.

Nat. v. australissimâ, Reduz (not of Le Guillon).

Hab. North Australia; Jukes.

A very solid poritoid shell, of shining ivory-white substance, distinguished by a particularly small superficial spire, and arched perspective umbilicus.

Species 85. (Mus. Cuming.)

NATICA UNIMACULATA. *Nat. testâ compressè umbilicatâ, subquadrato-ovata, crassâ, albâ, spirâ brevi, acuminatâ, angustibus saepeâ declivibus, deinde concoloris, laevibus, aperturâ transversâ, columnâ saepeâ latè callusâ, callositatè nâbilicâ modicâ; albâ, epidermide saepeâ fimbriâ indurâ, callositatè perspicuè-areolata.*

THE ONE-SPOTTED NATICA. Shell compressly umbilicated, somewhat pyriformly ovate, thick, solid, spire short, acuminated, whorls slanting at the upper part, then convex, smooth, aperture lunar-ovate, columnella broadly callous at the upper part, umbilical callosity moderate; white, covered with a fulvous horny epidermis, callosity stained with a purple spot.

Hab. Macatlan; Liou, Shipley.

A solid shell, of a pyriformly ovate shape, whitish, covered with a conspicuous fulvous epidermis. Its chief peculiarity consists in there being a characteristic purple stain on the umbilical callosity.

Species 86. (Mus. Cuming.)

NATICA GALLAPAGOSA. *Nat. testâ angustè arcuata umbilicatâ, acrobilicâ, crassissimâ, spirâ brevissimâ, obtusâ, angustibus saepeâ declivibus, deinde planis concoloris, laevibus, aut levissimè oblique striatis, aperturâ ovata, columnâ saepeâ latè callusâ; circumplectâ, fimbriâ latè pallidè areolatâ fimbriâ serratâ, aperturâ fimbriâ fuscâ.*

THE GALLAPAGOS NATICA. Shell narrowly arcuately umbilicated, ovately globose, rather thick, spire rather short, obtuse, whorls slanting at the upper part, then flatly convex, smooth, or very finely obliquely striated, aperture ovate, columnella very callous at the upper part; ash-lead, with a broad light orange band next the suture, interior of the aperture brownish.

RÉCIZ, Proc. Zool. Soc. 1843, p. 213.

Hab. Albemarle Island, Gallapagos group (in coral sand), Cuming.

An obtusely ovate species, of a lead-ash colour, encircled round the spire with a broad pale orange band.



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NATICA.

PLATE XX.

Species 87. (Mus. Cuning.)

NATICA COLLARIA. *Nat. testâ umbilicatâ, globosâ, spirâ subprotrusâ, suturâ planâ, leviter convexâ, angustâ, angustibus cuneatis, aperturâ semilunari, columellâ tenui, callositate parvâ columnariâ, umbilico intracto; albidâ, strigis pallidâ reflexate-fuscis punctis punctis, strigis amplis punctaribus in fasciâ patente infra suturam.*

THE COLLAR NATICA. Shell umbilicated, globose, spine rather produced, suture flattened, slightly channelled, whorls convex, aperture semilunar, columella rather thin, with a small columnar callosity entering the umbilicus; whitish, pointed with light waved reddish-brown streaks, streaks beneath the suture large and fewer, in an open band.

LAMARCK, *Anna. sans vert.* vol. viii. p. 638.

Hab. Senegal.

The open zigzag waves which form a collar, so to speak, round the upper part of each whorl, are always characteristic of this species.

Species 88. (Mus. Cuning.)

NATICA CLAUSA. *Nat. testâ imperforatâ, globulari, tenui, calâ spirâ brevi, subversatâ, angustibus superâ subdepressis, deinde rotundatis, liguriosis, aperturâ hemispheratâ, columellâ tenui, callosâ, callositate umbilicosa claudens; albidâ vel fuscescente.*

THE CLOSED NATICA. Shell imperforated, globular, rather thin, spine short, rather exerted, whorls a little depressed round the upper part, then rounded, smooth, aperture lunar-ovate, columella thin, callous, callosity closing the umbilicus; white or brownish.

BORDERIE and SOWERBY, *Zool. Journal*, vol. iv. p. 360.

Hab. North Sea.

Of a delicate white or brownish colour, generally thin, but varying in substance according to circumstances of locality.

Species 89. (Mus. Cuning.)

NATICA INCI. *Nat. testâ obtusâ umbilicatâ, orbiculari-depressâ, solutiusculâ, spirâ plano-obtusâ, angustibus*

angustis, superâ subdepressis, inferâ rotundatis, angustibus hemispheratis, aperturâ lunari-ovata, hemispheratâ, columellâ subversatâ callosâ, callositate intâ, rotundatâ. — Mus. Cuning. — albido-oblâ.

INCE'S NATICA. Shell with a covered umbilicus, orbicularly depressed, rather solid, spine flatly obtuse, whorls narrow, slantingly convex at the upper part, rounded at the lower, very minutely deossately striated, aperture lunar-ovate, horizontal, columella rather sharply callous, callosity broad, round, in the umbilical area; shining white.

PRELUCE, MS. Mus. Cuning.

Hab. Torres Straits, Australia; Capt. Ince.

A species of solid texture, and of peculiarly depressed growth, with a large solid button-like callosity filling up the umbilical area.

Species 90. (Mus. Cuning.)

NATICA ZELANDICA. *Nat. testâ six umbilicatâ, globosâ, tenui, spirâ subversatâ, angustibus superâ declivibus, cuneatis, deinde rotundatis, globosis, aperturâ hemispheratâ, columellâ tenui, callositate rotundatâ in area umbilicatâ; infensopunctâ, maculis fuscis arcuatis et confusisculâ.*

THE NEW ZEALAND NATICA. Shell scarcely umbilicated, globose, turbinate, spine rather exerted, whorls slantingly convex on the upper part, then rounded, smooth, aperture lunar-ovate, columella thin, with a round callosity in the umbilical area; yellowish-fawn, encircled with five zones of arched brown spots.

QUOY and GAIMARD, *Voy. de l'Astrolabe*, vol. ii. p. 237. pl. 66. F. 11 and 12.

Natica nigricans, Philippi.

Hab. New Zealand.

Of a smooth porcelain-like substance, painted with five rows of arched spots.

Fig. 91. (Mus. Cuning.)

For description of this species, *N. soluta*, see next Plate, Sp. 95.



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NATICA.

PLATE XXI.

Species 92. (Fig. *a*, Mus. Taylor; Fig. *b, c*,
Mus. Cuming.)

NATICA CATENATA. *Nat. testâ ampliter excavatè umbilicatâ, obliquè depressâ, subinflatâ, infra convexâ, spirâ parvâ, anfractibus superè declivibus, densè plicato-striatis, interstitiis acutè impressis, anfractuum medio et parte inferiori laevibus vel minute decussatè striatis, aperturâ lunari-ovato, subovulâ, effusâ, columellâ tenui, callositate latâ obtusâ columnari umbilicis intrante; livido-cinereâ, flammis fulvo-fuscescentibus fasciatâ pictâ.*

THE CHAINED NATICA. Shell largely excavately umbilicated, obliquely depressed, somewhat inflated, concave beneath, spire small, whorls slanting in the upper part, densely plicately striated, the interstices being sharply impressed, middle and lower portion of the whorls smooth or minutely decussately striated, aperture lunar-ovate, rather large, effused, columella thin, with a broad obtuse columnar callosity entering the umbilicus; livid ash-colour, painted with bands of fulvous-brown flames.

PHILIPPI, Pro. Zool. Soc. 1851.
Hab. Sicily.

This very interesting species is of an obliquely depressed form, characterized beneath the suture with a dense row of deeply grooved plicated ridges, which terminate suddenly at about one-third of the shell.

Species 93. (Mus. Cuming.)

NATICA PYRAMIS. *Nat. testâ subobovate umbilicatâ, conoidèa, crassâ, solidâ, spirâ calvè exsertâ, anfractibus declivi-convexis, minute decussatè striatis, aperturâ parviscrobâ, lunari-ovato, columellâ superè crassè callosâ; fuscescentè-albâ, nitratè.*

THE PYRAMID NATICA. Shell with a nearly covered umbilicus, conoid, thick, solid, spire much exerted, whorls slantingly convex, minutely decussately striated, aperture rather small, lunar-ovate, columella thickly callous at the upper part: brownish-white, shining.

Hab. Mouth of the Swan River, New Holland (in sandy mud, at the depth of ten fathoms); Lieut. Collic, R.N.

A very solid conical species, of a shining white, faintly tinged with brown.

Species 94. (Mus. Cuming.)

NATICA ELENA. *Nat. testâ ampliter excavatè umbilicatâ, obliquè depressâ, inflatâ, spirâ parvâ, anfractibus convexis, supra et infra densè plicato-linitis, aperturâ subovulâ, lunari-ovato, effusâ, columellâ superè callosâ, callositate latâ columnari umbilicis intrante; lutescentè-albâ, lineis fulvo-rufigis interruptè undatis densè longitudinaliter pictâ.*

THE ELENA NATICA. Shell largely excavately umbilicated, obliquely depressed, inflated, spire small, whorls convex, closely plicately ridged above and below, aperture rather large, lunar-ovate, effused, columella callous at the upper part, with a broad columnar callosity entering the umbilicus; yellowish-white, densely longitudinally painted with interruptedly waved fulvous-red lines.

RÉCLUZ, Pro. Zool. Soc. 1843, p. 205.
Eadem *Natica Hueti*, Récluz.

Hab. St. Elena, West Columbia (in sandy mud, at six fathoms); Cuming.

Peculiarly characterized by the fulvous-red lines with which it is densely longitudinally painted, being here and there suddenly shaken or dislocated, so to speak, in their plan of waving.

Species 95. (Mus. Cuming.)

NATICA SULCATA. *Nat. testâ ampliter excavatè umbilicatâ, obliquè depressâ, crassiusculâ, spirâ brevî, anfractibus rotundatis, juxta saturas impressis, anfractu fortiter sulcatis et cancellatis, aperturâ lunari-ovato, effusâ, columellâ superè callosâ, callositate latâ columnari umbilicis intrante; albâ, fulvo-aurantio interdum fasciatâ et maculatâ.*

THE GROOVED NATICA. Shell largely excavately umbilicated, obliquely depressed, rather thick, spire short, whorls round, impressed next the sutures, strongly grooved and cancellated throughout, aperture lunar-ovate, effused, columella callous at the upper part, with a broad columnar callosity entering the umbilicus; white, sometimes banded and mottled with fulvous-orange.

Natica solcata, Born, Test. Mus. Cæs. Vindobonensis,
pl. 17. f. 5, 6.

Natica caucellata, Gmelin.

Natica solcata, Lamarck.

Natica solcata, Deshayes.

Hab. West Indies.

The only species of *Natica* which is absolutely sculptured throughout.

Species 96. (Mus. Cuming.)

NATICA GREENLANDICA. *Nat. testâ vir umbilicatâ, glo-*
bosâ, spirâ subauctâ, exsertâ, anfractibus rotundatis.

lævis, aperturâ lunari-ovatâ, columellâ inferiè cal-
loso-reflexâ; opaco-albâ, epidermidè virescente-cævâ
indutâ, versus apicem plus minus erosâ.

THE GREENLAND NATICA. Shell scarcely umbilicated, globose, spire rather large, exserted, whorls rounded, smooth, aperture lunar-ovate, columella callously reflected at the lower part: opaque-white, covered with a greenish-ash epidermis, more or less eroded towards the apex.

BECK, Møller, Ind. Moll. Grœnlandiæ, p. 7.

Hab. Greenland and Norway.

A light chalk-white species, covered with a peculiar livid-ash smooth horny epidermis.



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NATICA.

PLATE XXII.

Species 97. (Fig. a, b, c, Mus. Cuming.)

NATICA INTRICATA. *Nat. testâ subaapiliter excavatè umbilicatâ, subobliquè globosâ, solidâ, spirâ mediocri, aufractibus superâe convexo-depressis, deinde rotundatis, laevibus, aperturâ lunari-oratâ, columellâ superâe callosâ-reflexâ; fulvrescenti-albâ, flavanis tenuibus rufo-ventres-fuscis, fascisquè vittatis angustis.*

THE ENTANGLED NATICA. Shell rather largely excavately umbilicated, rather obliquely globose, solid, spire moderate, whorls concavely depressed round the upper part, then rounded, smooth, aperture lunar-ovate, columella callously reflected at the upper part; fulvous-white, painted with fine reddish-brown flames and narrow filleted bands.

Novita introita, Donovan, British Shells, vol. v. pl. 167.

Natica Valenciennesii, Payraudeau.

Hab. Mediterranean.

Though originally described as a British shell, this species is not indigenous to our coast. It is an inhabitant of the Mediterranean, belonging to the same type as *N. Marochiensis*.

Fig. 98. (Mus. Cuming.)

The shell here figured proves to be the young of *N. Sinica*, represented at Plate XVII. Fig. 76.

Species 99. (Mus. Cuming.)

NATICA VAVAOI. *Nat. profundè perspectivè umbilicatâ, obliquè oratâ, solidissimâ, spirâ obtusâ, subproductâ, aufractibus superâe convexo-declivibus, deinde convexis, aperturâ parvâ, lunari-oratâ, columellâ callositate latissimâ reflexâ ad partem superiore, umbilicam partim tegente; nitente charuatâ.*

THE VAVAO NATICA. Shell deeply perspectively umbilicated, obliquely ovate, very solid, spire obtuse, rather produced, whorls concavely slanting at the upper part, then convex, aperture small, lunar-ovate, columella with a very broad reflected callosity at the upper part, partially covering the umbilicus; shining ivory-white.

LE GUILLOT, MS. in Mus. Cuming.

Hab. Island of Vavao, South Pacific.

Distinguished from *N. caudatissima* of the same author, from the same locality, by its more obliquely oblong form,

and more produced apex, and very broad recurved shelf of enamel bridged across the umbilicus.

Species 100. (Mus. Taylor.)

NATICA FULGURANS. *Nat. testâ umbilicatâ, obliquè globosâ, subtus concavâ, solidiusculâ, spirâ mediocri, aufractibus rotundatis, laevibus vel tenuè striatis, aperturâ lunari-oratâ, columellâ tenuibus, callositate parvâ columari umbilicam intrante; albâ, flavanis fulgurantibus spadiceo-nigris irregulariter confluentibus pictâ.*

THE LIGHTNING-MARKED NATICA. Shell umbilicated, obliquely globose, concave beneath, rather solid, spire moderate, whorls rounded, smooth or finely striated, aperture lunar-ovate, columella rather thin, with a small columnar callosity entering the umbilicus; white, marked with fawn-black lightning flames, irregularly flowing together.

RECLUZ, Pro. Zool. Soc. 1843, p. 206.

Hab. Senegal.

A solid species, very characteristic in its bold irregular style of painting.

Species 101. (Mus. Cuming.)

NATICA MELANOSTOMOIDES. *Nat. testâ imperforatâ, tenui, auriformi, inflatâ, spirâ parvâ, obtusâ, aufractibus convexo-declivibus, striatis, ultimo perovato maximo, compresso, aperturâ perovaplâ, basi effusâ, columellâ tenuè reflexâ; pellucido-albâ, maculis fuscocastaneis interruptis triseriatis zonatâ, epidermide stramineâ partim indurâ, eucastâ columellari castaneâ.*

THE MELANOSTOMOID NATICA. Shell imperforated, thin, ear-shaped, inflated, spire small, obtuse, whorls convexly slanting, striated, the last very much the largest, compressed, aperture very large, effused at the base, columella thinly reflected; transparent white, encircled with three rows of interrupted fulvous-chestnut spots, partially covered with a straw-coloured epidermis, columellar enamel chestnut.

QUOY and *GAIMARD*, Voy. de l'Astrolabe, vol. ii. p. 229. pl. 66. f. 4 to 8.

Hab. New Guinea and New Ireland; *Quoy*.

This species is the extreme auriform type of the Sigaretoid group of *Natica*, having nearly the form of a *Succinea*.



1000



1001



1002



1003



1004



1005



1006



1007



1008



1009

NATICA.

PLATE XXIII

Species 102. (Mus. Cuming.)

NATICA PORCELANEA. *Nat. testâ anguste profunde umbilicâ, obliquè globosâ, solidâ, spirâ brevi, obtusâ, infraxillis superâe concavâ-umbilicatis, deinde convexâ, aperturâ linearis-ovata, columellâ superâe latè callosâ, callositate parè callosauri nubiliora laterâ, concavâ subcolonnâ de callositate fere cuncta parte cinctâ.*

THE PORCELAIN NATICA. Shell narrowly deeply umbilicated, obliquely globose, solid, spire short, obtuse, whorls concavely indented round the upper part, then convex, aperture linear-ovate, columella broadly callosous at the upper part, with a small columnar callosity entering the umbilicus; bluish milk-white, partially covered with a yellowish-horny epidermis.

D'ORBIGNY, MS. in Mus. Cuming.

Hab. Bahía.

A solid milk-white shell, partially covered with a yellowish epidermis, distinguished chiefly by a gently indented spike concavity round the upper portion of the whorls.

Species 103. (Mus. Cuming.)

NATICA RUFILABRIS. *Nat. testâ obtusè umbilicâ, subglobosâ, levanicâ, spirâ medianâ, subovata, infraxillis rotundatis, larebus, aperturâ ovata, columella superâe callosâ, callositate latè extensâ nubiliora tegente; lichenopunctatâ, obscurè foveolâ, nitente, concavâ subcolonnâ de callositate ricinè costarum.*

THE RED-LIPPED NATICA. Shell with a covered umbilicus, subglobose, rather thin, spire moderate, a little exserted, whorls rounded, smooth, aperture ovate, columella callous at the upper part, with a broad reflected callosity covering the umbilicus; livid lead-colour, obscurely banded, shining, columellar enamel and callosity bright chestnut.

Hab. Bahía.

A rather light shining livid lead-coloured species, with the columellar enamel and callosity deep bright chestnut.

Species 104. (Mus. Cuming.)

NATICA VARIABILIS. *Nat. testâ rive umbilicâ, subobliquè globosâ, solidâ-levicâ, spirâ medianâ, apice acutâ,*

infraxillis rotundatis, larebus, nitentibus, aperturâ linearis-ovata, columellâ callosâ-reflexâ; albidi, lichenopunctatis plus minus foveolâ, foveolâ rive callositate rotundata et ad basin foveolâ, concavâ columellâ, foveolâ, foveolâ.

THE VARIABLE NATICA. Shell scarcely umbilicated, rather obliquely globose, rather solid, spire moderate, rather sharp at the apex, whorls rounded, smooth, shining, aperture linear-ovate, columella callously reflected; whitish, more or less stained with livid-blue, covered with a fine network of fulvous-red and lanced at the base, columellar enamel fulvous-chestnut.

RECLUZ, MS. in Mus. Cuming.

Hab. ———?

This species belongs to the same type as *N. lateralis*, and is probably from the Mediterranean.

Species 105. (Mus. Cuming.)

NATICA GAMBLE. *Nat. testâ anguste umbilicâ, obliquè et testâ, rive-rotundâ, spirâ conico-depressâ, apice acutâ, infraxillis superâe obliquè plicatâ-subulicatis, deinde larebus, rotundatis, aperturâ linearis-ovata, columella callosâ de lato rive, parvâ ad partem superiorem, albidâ, lateribus debile carinâ-fimbriâ.*

THE GAMBLE NATICA. Shell narrowly umbilicated, obliquely globose, rather thick, spire conically depressed, sharp at the apex, whorls obliquely plicately grooved round the upper part, then smooth, rounded, aperture linear-ovate, columella with a broad reflected callosity, particularly at the upper part; white, sometimes faintly flesh-tinted.

RECLUZ, Pro. Zool. Soc. 1843, p. 207.

Hab. Mouth of the River Gambia, West Africa (found on the sands); Mr. Beale, of Jersey.

A solid shining flesh-white shell, well characterized by an oblique row of plicated grooves below the sutures.

Species 106. (Mus. Cuming.)

NATICA NITIDA. *Nat. testâ anguste umbilicâ, concavè globosâ, sublevicâ, spirâ acutè emouatâ, infraxillis superâe declivè-concavis, deinde rotundatis, aperturâ linearis-oblongâ, columellâ levicè-reflexâ, ad basin levicâ; externè scabro-sulcâ, internè foveolâ-fulvâ-albidâ*

*obscurè quinquefasciatâ, encaustâ columellari fulvo-
costatâ.*

THE SHINING NATICA. Shell narrowly umbilicated, conically globose, subventricose, spire sharply conoid, whorls slantingly convex round the upper part, then rounded, aperture lunar-oblong, columella thinly reflected, arched at the base; bluish-white, obscurely five-banded with fulvous-red blotches, columellar enamel fulvous-chestnut.

Natica nitida, Donovan, Brit. Shells, vol. iv. pl. 141.

Natica nitida, Fleming.

Natica Alderi, Forbes.

Natica Guillemini, Payraudeau.

Hab. Seas of Europe.

An elegantly formed species, mostly of a livid bluish colour, obscurely painted with bands of fulvous-red blotches, of which the uppermost is the most distinct.

Species 107. (Mus. Cuning.)

NATICA Plicatula. *Nat. testâ angustè umbilicatâ, globosâ, tenuiculâ, spirâ subobtusâ, anfractibus rotundatis, subangustis, radè leviplicatis, apertura lunari-oblongâ, columellâ tenuiter reflectâ: sordidè fulvâ, ferrugineo-rufo tinctâ.*

THE FINELY Plicated NATICA. Shell narrowly umbilicated, globose, rather thin, spire rather obtuse, whorls rounded, rather rough, rudely finely plicated, aperture lunar-oblong, columella thinly reflected, dirty fulvous, tinged with rust-red.

NUTTALL, Jay's Catalogue of Shells, p. 68.

Hab. —?

A light rough fulvous-red shell, irregularly finely plicated.



105a



106a



107a



108a



109a



110a



111a



112a



113a



114a

NATICA.

PLATE XXIV.

Species 108. (Fig. a, b, Mus. Cuming.)

NATICA UMBILICATA. *Nat. testâ ampliter obliquè excavatè umbilicatâ, convexo-depressâ, Haliotiformi, levi, subimpunctatâ, spirâ brevissimâ, laterali, infractibus convexis, tenuiter decussatim striatis, ultimo mariano, inflato, apertura ovali, marginibus approximatâ; subpellucido-âllâ, ferrugineo-rufo promiscuè strigulatâ et maculatâ.*

THE UMBILICATED NATICA. Shell largely obliquely excavately umbilicated, convexly depressed, Haliotis-shaped, thin, semitransparent, spire very short, lateral, whorls convex, finely decussately striated, last whorl much the largest, inflated, aperture ovate, with the margins approximated; subtransparent white, promiscuously streaked and spotted with rust-red.

GOUD, Voy. de l'Astrolabe, vol. ii. p. 231. pl. 66. f. 22 and 23.

Hab. Van Diemen's Land; Ronald C. Gunn.

A light semitransparent Haliotis-shaped shell, with a very peculiar obliquely excavated umbilicus.

Species 109. (Mus. Cuming.)

NATICA TRISERIATA. *Nat. testâ subangustè umbilicatâ, globosâ, spirâ brevissimâ, suturâ leviter impressâ, infractibus rotundatis, absolute plicatos-triatis, apertura ovali, columellâ superâe calloso-reflexâ; lichte-griseâ, obscurè triseriatâ, hic illic ferrugineo-tinctâ, callositate opaco-âllâ, aperture faveæ costatâ.*

THE THREE-BANDED NATICA. Shell rather narrowly umbilicated, globose, spire rather short, suture slightly impressed, whorls rounded, faintly plicately striated, aperture ovate, columella callously reflected at the upper part; livid grey, obscurely three-banded, here and there rust-tinged, callously opaque-white, interior of aperture chestnut.

SAY, Journ. Acad. Nat. Sci. Philadelphia, vol. v. p. 209.

Hab. Bay of Massachusetts, United States.

The opaque-white callosity and chestnut interior of this shell, contrast in a characteristic manner with its rust-tinged livid blue exterior.

Species 110. (Mus. Cuming.)

NATICA FLAVA. *Nat. testâ im perforatâ, globosâ, levi, tenuimaculatâ, spirâ brevissimâ, depressâ, infractibus convexis, ultimo nullo mariano, apertura ovali, subâmplâ, columellâ tenuè reflexâ, subrotundâ; pellucido-âllâ, epiboscide coracè decusatâ fuscâ indatâ.*

THE YELLOW NATICA. Shell imperforated, globose, thin, rather swollen, spire very short, depressed, whorls convex, the last much the largest, aperture ovate,

rather large, columella thinly reflected, slightly twisted; transparent white, covered with a yellow deciduous horny epidermis.

GOULD, Stillman's Journ. vol. xxxviii. p. 196. Invert. of Massachusetts, p. 239. f. 162.

Hab. Massachusetts Bay, United States.

A light inflated globose transparent white shell, covered with a yellow horny deciduous epidermis, the spire being almost on a level with the upper margin of the aperture.

Species 111. (Mus. Cuming.)

NATICA SAGRANA. *Nat. testâ subobtusè umbilicatâ, obliquè globosâ, spirâ brevi, subultrâ, infractibus superâe declivibus, decudè convexis, levibus, politis, apertura lunari-ovata, columellâ callositate latâ amplâ multilinea fere leprete; albida, lineis griseo-purpureo-ventibus densè obliquè vultatâ, callositate fuscocostâ.*

THE SAGRA NATICA. Shell with a nearly covered umbilicus, obliquely globose, spire short, rather obtuse, whorls slanting round the upper part, then convex, smooth, polished, aperture lunar-ovate, columella with a large broad callosity nearly covering the umbilicus; whitish, densely obliquely waved with greyish-purple lines, callosity brownish.

D'ORSTON, Moll. Cuba, pl. 18. f. 20 and 22.

Hab. Malaga.

A smooth porcelain-like species, closely painted throughout with obliquely waved greyish-purple lines; the umbilicus being nearly covered by a broad button-like callosity.

Species 112. (Mus. Cuming.)

NATICA COLLIEI. *Nat. testâ subampliter umbilicatâ, globosâ, spirâ brevi, subseriatâ, infractibus rotundatis, superâe absolute plicatos-triatis, apertura lunari-ovata, columellâ callositate solidâ rotundâ umbilicâ intus-âllâ; albida, unguis subquadralis, ornatissimè punctatis, interdentis confluentibus, secutisâ politâ.*

COLLIE'S NATICA. Shell rather largely umbilicated, globose, spire short, rather exerted, whorls rounded, absolutely plicately ridged round the upper part, aperture lunar-ovate, columella with a solid columnar callosity entering the umbilicus; whitish, painted with rows of somewhat square orange-fawn spots sometimes flowing together.

REICHERZ, Pro. Zool. Soc. 1843, p. 207.

Hab. Swan River, Australia (on stones at low water); Lieut. Collie.

Distinguished mainly by its large obliquely square orange-fawn spots, sometimes flowing longitudinally together.



110



111



112



113



114



115



116



117



118



119

NATICA.

PLATE XXV.

Species 113. (Mus. Cuming.)

NATICA CLAUSA. *Nat. testâ oblate umbilicatâ, subglobosâ, spirâ brevi, anfractibus rotundatis, levigatis vel leviter erosâ, aperturâ semilunari, labro simplici, columellâ tenuicollâ, callusitate parâ latâ umbilicâna impente; pallidè sordidè fuscovirente.*

THE CLOSED NATICA. Shell with a closed umbilicus, subglobose, spire short, whorls rounded, smooth or slightly eroded, aperture semilunar, lip simple, columella rather thin, with a small broad callusity filling the umbilicus; light dull brown.

PROBERT and SOWERBY, Zool. Journ. vol. iv. p. 369.

Natica consolidata, Couthouy.

Natica borealis, Beck.

Natica imperia, Philippi.

Hab. Bay of Massachusetts, United States (taken alive in stomachs of fishes, plentifully); Gould.

A dull pale brownish solid globose species, having the umbilicus closed by a small broad callusity, and the aperture by a shelly operculum.

Species 114. (Mus. Cuming.)

NATICA GUALTERIANA. *Nat. testâ subduplîter umbilicatâ, subglobosâ, tenuicollâ, spirâ brevi, subventâ, anfractibus rotundatis, levigatis, junctâ suturâ obsolete plicato-striatis, aliiâo subeffuso, aperturâ lunari-oratâ, columellâ tenuicollâ, callusitate spirali columnari umbilicâna intrante; ampulluculo-albâ, strigis pallidè narentio-rufis quadrifasciatâ.*

GUALTER'S NATICA. Shell rather largely umbilicated, subglobose, rather thin, spire short, rather sharp, whorls rounded, smooth, obsolete plicately striated next the suture, last whorl rather effused, aperture lunar-ovate, columella rather thin, with a spiral columnar callusity entering the umbilicus; semitransparent white, encircled with four bands of light orange-red streaks.

PETIT, Journ. Conch. vol. i. p. 336.

Hab. Island of Bohol, Philippines; Cuming.

A light subinflated species, encircled with four bands of faint orange-red close-set streaks.

Species 115. (Mus. Cuming.)

NATICA TEXTILIS. *Nat. testâ angustè profunde umbili-*

catâ, globoso-turbinatâ, spirâ subserietâ, anfractibus rotundatis, levibus, aperturâ lunari-oratâ, labro tenui, columellâ parva callosâ, areâ umbilicali spiraltè excavatâ; fuscovirente, testile irregulari rufo-fusco pictâ.

THE TEXTILE NATICA. Shell narrowly and deeply umbilicated, globose-turbinated, spire slightly exerted, whorls rounded, smooth, aperture lunar-ovate, lip thin, columella but little callous, umbilical area spirally excavated; brownish, painted with an irregular red-brown brocade.

Hab. —?

A very characteristic species, painted with a red-brown brocade, interrupted promiscuously with large open spots, and having a smooth shelly operculum.

Species 116. (Mus. Cuming.)

NATICA SEMISULCATA. *Nat. testâ profunde duplîter umbilicatâ, ovatâ, spirâ brevioratâ, suturâ canaliculatâ et minute linearis-sulcatâ, anfractibus superne declivicoarctatis, glabris, pallis, solis quinque ad sex linearibus æquidistantibus infra suturâ circumgatis, aperturâ lunari-oratâ, columellâ parva callosâ, superne effusâ; chlorurâ.*

THE HALF-GROOVED NATICA. Shell deeply largely umbilicated, ovate, spire rather short, suture channelled and minutely linearly grooved, whorls slantingly contracted at the upper part, smooth, polished, encircled beneath the suture with five to six equidistant linear grooves, aperture lunar-ovate, columella but little callous, effused at the upper part; ivory-white.

GRAY, Zool. Beechey's Voyage, p. 137.

Hab. Porto Rico.

A subopaque ivory-white species, readily distinguished by its channelled suture, and by the presence of five to six equidistant linear grooves round the upper contracted portion of the whorls.

Species 117. (Mus. Cuming.)

NATICA PUSILLA. *Nat. testâ rîe umbilicatâ, subglobosâ, spirâ subserietâ, anfractibus rotundatis, aperturâ lunari-oratâ, columellâ inflexâ calloso-reflexâ, callusitate umbilicâna fere legante; sordidè albâ vel pallidè vitæcâ, plus minus erosâ.*

June, 1855.

THE SMALL NATICA. Shell scarcely umbilicated, sub-globose, spire rather exserted, whorls rounded, aperture lunar-ovate, columella callously reflected at the lower part, callosity nearly spread over the umbilicus; shell white or pale olive, more or less eroded.

SAY, Journ. Acad. Nat. Sci. Philadelphia, vol. ii. p. 257.

Hab., Bay of Massachusetts, United States (taken from fishes); Gould.

This little species, though so closely allied in character and habit to *N. elonosa*, differs in having a horny operculum. The whorls are more slanting round the upper part, and the umbilicus is only partially covered, the columellar lip being more callously reflected towards the base.

Species 118. (Mus. Cuming.)

NATICA CARIBBEA. *Nat. testâ augustè profunde umbilicata, ovata, crassiusculâ solidâ, spirâ brevi, scab-*

losâ, anfractibus laevibus, declivi-convexis. aperturâ lunari-ovata, columellâ callositate latâ densâ superne unitâ, callositate umbilicua fere tegente; sordidè lividi-albicante. fuscâ opaco-oblâ juxta suturam circumscissâ.

THE CARIBBEAN NATICA. Shell narrowly deeply umbilicated, ovate, rather thick, solid, spire short, rather obtuse, whorls smooth, slantingly convex, aperture lunar-ovate, columella with a broad dense callosity at the upper part, callosity almost covering the umbilicus, shell livid white, circled with an opaque-white band next the suture.

PHILIPPI, MS. in Mus. Cuming.

Hab., Caribbean Sea.

A small solid white shell, of a peculiar livid aspect, opaque next the suture: the columella being densely callous at the upper part.



176a



176c



176d



177a



178a



178b



179a



179c



179d



180a

NATICA.

PLATE XXVI.

Species 119. (Mus. Cuning.)

NATICA BULBOSA. *Nat. testâ angustè umbilicatâ, globosâ, tenui, subinflatâ, spirâ parâ, suturâ minutè impressâ, infractibus rotundatis, lœvibus, epidermide cœrulescente-cornuâ coruâ indatâ, aperturâ ovatâ, columellâ tenui callosa-reflectâ, cœvus apicem plus minus erosâ.*

THE BULBOUS NATICA. Shell narrowly umbilicated, globose, thin, slightly inflated, spire small, suture minutely impressed, whorls rounded, smooth, covered with greenish-ash horny epidermis, aperture ovate, columella thinly callously reflected, more or less eroded towards the apex.

Hab. — ?

This has all the appearance of an Arctic species, thinner in substance and rounder than *N. Grœlandica*, with a shorter spire.

Species 120. (Mus. Cuning.)

NATICA BOREALIS. *Nat. testâ angustè umbilicatâ, globosâ, spirâ brevi, suturâ minutè impressâ, infractibus rotundatis, lœvibus, aperturâ ovatâ, columellâ nudiq; callosa-reflectâ; callosa-umbâ, epidermide coruâ flavo-cœule indatâ, cœvus apicem leviter erosâ.*

THE NORTHERN NATICA. Shell narrowly umbilicated, globose, spire short, suture minutely impressed, whorls rounded, smooth, aperture ovate, columella somewhat callously reflected throughout; chalk-white, covered with a yellowish-horny epidermis, a little eroded towards the apex.

SOWERBY. Zool. Beechey's Voyage. pl. 37. f. 2.

Hab. North Seas.

Allied to *N. Grœlandica*, but distinguished from that species by the spire being less exerted.

Species 121. (Mus. Cuning.)

NATICA GEMEXUS. *Nat. testâ imperforatâ, subglobosâ, spirâ brevissimâ, infractibus cœværis, lœvibus, aperturâ œciliatâ, columellâ callositate mucosâ reflectâ; lobescente-umbâ, foveis tribus angustis distantibus confusè villatis circumdatâ, intersitiis punctis rufo-fœvis aspersis, serie filamentarum juxta suturam.*

THE GARTERED NATICA. Shell imperforated, subglobose, spire rather short, whorls convex, smooth, aperture semilunar, columella with a very large reflected callosity; yellowish-white, encircled with three distant,

narrow, red-brown filleted bands, the interstices filled with red-brown dots, with a row of flames next the suture.

Hab. South Africa.

A very characteristic solid species, in which the seat of the umbilicus is entirely covered with callous matter, and the painting is peculiar. Round the upper part of the whorls is a row of red-brown flames as in *N. collaris*, the remainder of the shell being painted with close-set dots of the same colour, interrupted at rather distant intervals with three filleted bands.

Species 122. (Mus. Cuning.)

NATICA CORA. *Nat. testâ angustè profundè umbilicatâ, oblongo-ovatâ, cœvâ, solidâ, spirâ brevissimâ, cœvâ, infractibus plumbeo-lœvibus, lœvibus, aperturâ œciliatâ, parvisimâ, columellâ superâ callositate densâ latè unatâ; cœvâ, epidermide tenui cœvâ indatâ, fovearum-umbâ interduâ parvâ triatâ.*

THE GIRD NATICA. Shell narrowly deeply umbilicated, oblong-ovate, thick, solid, spire rather short, conoid, whorls flatly slanting, smooth, aperture semilunar, rather small, columella with a thick broad callosity at the upper part; ivory-white, covered with a thin horny epidermis, sometimes partially tinged with rust-red.

D'ORBIGNY, Voyage dans l'And. mérid. pl. 78. t. 10 and 11.

Hab. — ?

A solid ivory-white shell, of a peculiarly oblong-conoid form, slightly concavely flattened round the middle, covered with a thin horny epidermis.

Species 123. (Mus. Cuning.)

NATICA FORTUNEL. *Nat. testâ angustè umbilicatâ, conoidè-globosâ, levissimâ, spirâ exertâ, infractibus cœværis, deussatim minutissimè striatâ, aperturâ ovatâ, columellâ tenui, subreflectâ; livido-cœulei, cœvus-fœvescente triatâ.*

FORTUNE'S NATICA. Shell narrowly umbilicated, conoidly globose, rather thin, spire exerted, whorls convex, deussately very minutely striated, aperture ovate, columella thin, slightly reflected; livid-blue-tinged with flesh-brown.

Hab. Shanghai, China; Fortune.

Of a light texture and livid blue colour, tinged with flesh-brown, collected at Shanghai by Mr. Fortune.



1760



1761



1762



1763



1764



1765



1766



1767



1768



1769



1770

NATICA.

PLATE XXVII.

Species 124. (Mus. Cuming.)

NATICA GLABELLA. *Nat. testâ augustè profunde umbilicatâ, subfusiformi-oblongâ, solidiusculâ, spirâ breviusculâ, exsertâ, anfractibus declivi-convexis, levigatâ, politâ, aperturâ scutiformi, parvâ, columellâ superâe callositate latâ, reflexâ; pellucidâ-âlbâ, caracâ tinctâ, callositate caracâ.*

THE SMOOTH NATICA. Shell narrowly deeply umbilicated, subsiformly oblong, rather solid, spire rather short, exerted, whorls slantingly convex, smooth, polished, aperture scutiform, small, columella with a broad reflected callosity at the upper part; transparent white, flesh-tinged, callosity flesh-coloured.

Hab. — ?

An elegantly convoluted transparent white polished shell, of rather solid structure, tinged with a violet flesh-colour, which is bright on the callosity.

Species 125. (Mus. Cuming.)

NATICA MONTAGUI. *Nat. testâ profunde umbilicatâ, globosâ, spirâ aëliocri, anfractibus columnatis, levigatis, aperturâ lunari-oratâ, columellâ superâe leviter callosâ, callositate columnari ferè obsolete umbilicam intrante; rufescente-âlbâ.*

MONTAGU'S NATICA. Shell deeply umbilicated, globose, spire middling, whorls rounded, smooth, aperture lunar-ovate, columella a little thickened at the upper part, with a nearly obsolete columnar callosity entering the umbilicus; rufous-white.

FORBES, Malacologia Monacis, p. 32.

Nerita rufa, Montagu (not of Born).

Natica cutâa, Macgillivray.

Hab. Britain.

A rufous-white species, inhabiting the British seas throughout, but chiefly in the north.

Species 126. (Fig. a, b, c, Mus. Cuming.)

NATICA PROXIMA. *Nat. testâ umbilicatâ, globosâ, spirâ brevi, anfractibus columnatis, levibus, nitidâ, aperturâ lunari-oratâ, columellâ subcompressâ, callositate co-*

lumnari umbilicam intrante; albâ, punctis minutis rufescenti-fuscis iadantâ, fuscis tribus ciliatis interruptâ.

THE ALLIED NATICA. Shell umbilicated, globose, spire short, whorls rounded, smooth, shining, aperture lunar-ovate, columella rather thickened, with a columnar callosity entering the umbilicus; whitish, covered with minute red-brown dots, interrupted with three filleted bands.

C. B. ADAMS, Contributions to Conchology, p. 111.

Hab. Jamaica.

This belongs to the same type of form and colouring as *N. caracâ*, the filleted bands varying in width and distinctness in different species.

Fig. 127. (Mus. Cuming.)

This specimen, named in Mr. Cuming's collection by M. Récluz *N. Froucois*, appears to be a variety of the British *N. nitida*.

Species 128. (Mus. Cuming.)

NATICA BURIASSENSIS. *Nat. testâ profunde umbilicatâ, subglobosâ, solidiusculâ, spirâ parvâ, subexsertâ, anfractibus superâe declivibus, inferâe convexis, levibus, politis, aperturâ lunari-oratâ, parvisculâ, columellâ superâe callositate latâ reflexâ; corruscânte-âlbâ, lineis rufis ovalitis longitudinaliter pictâ, callositate intusæ rufâ.*

THE BURIAS NATICA. Shell deeply umbilicated, sub-globose, rather solid, spire small, a little exerted, whorls slanting round the upper part, convex at the lower, smooth, polished, aperture lunar-ovate, rather small, columella with a broadly reflected callosity at the upper part; bluish-white, painted longitudinally with fine waved red lines, callosity deep red.

RECLUZ, Pro. Zool. Soc. 1843, p. 242.

Hab. Island of Burias, Philippines, Cuming.

A solid porcelain-like species, neatly painted throughout with longitudinally waved red lines, the callosity being of a deep red colour.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

NATICA.

PLATE XXVIII.

Species 129. (Mus. Cuming.)

NATICA FORATA. *Nat. testâ excavatâ perspective umbilicâta, depresso-globosâ, spirâ subulosa, anfractibus junctis suturas subdepressis, deinde rotundatis, aliam antice descendente, aperturâ semilunari, columellâ tenui, superâe callosâ; albidâ, punctis et arenulis arenosis cretâe pictâ.*

THE BORED NATICA. Shell excavated perspective umbilicated, depressly globose, spire rather obtuse, whorls a little depressed next the suture, then rounded, last whorl descending in front, aperture semilunar, columella thin, callous at the upper part; whitish, prettily painted with orange dots and blotches.

Hab. Buffab, Cape of Good Hope.

A prettily painted species, distinguished by a large peculiarly excavated perspective umbilicus.

Species 130. (Mus. Cuming.)

NATICA FIBULA. *Nat. testâ obteclâ umbilicatâ, orbiculari-depressâ, subtus excavatâ, spirâ minuta, anfractibus ad suturas marginatis, plano-convexis, aperturâ obliquâ lunari, columellâ brevissimâ, callositate parvaâ solidâ rotundâ umbilicis implete; fulvescente-albâ.*

THE BUTTON NATICA. Shell with a covered umbilicus, orbicularly depressed, excavated beneath, spire very small, whorls margined at the suture, flatly convex, aperture obliquely lunar, columella very short, with a large round solid callosity filling the umbilicus; fulvous-white.

Hab. — ?

A small obliquely depressed fulvous-white shell, with a large round button-like callosity in the place of the umbilicus.

Species 131. (Mus. Cuming.)

NATICA JAMAICENSIS. *Nat. testâ obteclâ umbilicatâ, obliquâ gibbosâ, subdepressâ, spirâ parvâ, anfractibus junctis suturas plicatostriatis, convexis, aperturâ lunari-ovata, subgibbâ, columellâ tenui, reflexâ, callositate luteâ rotundâ umbilicis implete; limbo-griseâ, nitentâ, junctis suturas albâ, infuscâ fuscâ fulcâ luteâ interceptâ cingulatâ, callositate intusâ purpureo-roseâ.*

THE JAMAICA NATICA. Shell with a covered umbilicus, obliquely globose, slightly depressed, spire small, whorls plicately striated next the suture, convex, aperture lunar-ovate, a little effused, columella thinly reflected, with a broad round callosity filling the umbilicus; livid grey, shining, white next the suture, encircled at the lower part with a broad interrupted fulvous band, callosity deep purple-chestnut.

C. B. ADAMS, Contributions to Conchology, p. 111.

Hab. Jamaica.

Of a delicate livid grey, encircled with a broad interrupted pale flamed band round the lower part, and with white next the suture; the callosity and columellar enamel being bright purple-chestnut.

Species 132. (Mus. Cuming.)

NATICA PAVIMENTUM. *Nat. testâ obteclâ umbilicatâ, gibbosâ, subulosa, spirâ parvâ, obtusâ, suturâ linearimpressâ, anfractibus obtusè rotundatis, aperturâ semilunari, parvisculâ, columellâ callosâ, callositate rotundâ, umbilicis implete; albâ, nitentâ, arenulis arenatis-fuscis distinctibus tessellatâ.*

THE PAVEMENT NATICA. Shell with a covered umbilicus, globose, rather solid, spire small, obtuse, suture linearly impressed, whorls obtusely rounded, aperture semilunar, rather small, columella callous, with a rounded callosity filling the umbilicus; white, shining, tessellated with distant orange-brown square spots.

RECLUZ, Pro. Zool. Soc. 1813, p. 208.

Eadem var. *Natica Crillozianâ*, Recluz.

Hab. Island of Ticao, Philippines; Cuming.

A rounded largely irregularly tessellated shell, shining like porcelain.

Species 133. (Mus. Cuming.)

NATICA MACHENTA. *Nat. testâ excavatâ profunde umbilicatâ, gibbosâ-ovata, spirâ parvâ, obtusè exsertâ, anfractibus superâe declivibus, deinde convexis, levibus, aperturâ lunari-ovata, columellâ calloso-reflexâ; fulvescente-albâ, nitentâ, varicositate obscure lineâ et reticulâ, excavatâ columellari costatâ.*

THE LEAN NATICA. Shell excavated deeply umbilicated.

globose ovate, spire small, obtusely exerted, whorls slanting in the upper part, then convex, smooth, aperture lunar-ovate, columella callously reflected; fulvous-white, shining, obscurely stained and filleted flesh-brown, columellar enamel chestnut.

PHILIPPI, Abbild. und Besch. Conch. vol. ii. pl. 24. f. 14.

Hab. — ?

The painting of this little species, which is of rather light structure, is very obscurely distributed.

Species 131. (Mus. Cum.)

NATICA LOCELLUS. *Nat. testā minutē unilicatā, sub-*

globosā, spirā exertā, apice acutā, anfractibus rotundatis, lacinibus, aperturā lunari-ovata, columellā tenuē callosā; livido-carnea, fulvo-aureo obscure tinctā et vittatā.

THE LITTLE PURSE NATICA. Shell minutely unilicated, subglobose, spire exerted, sharp at the apex, whorls rounded, smooth, aperture lunar-ovate, columella thinly callous: livid flesh-tinged, fulvous-brown, obscurely filleted and stained.

Hab. — ?

More globose than the preceding species, with the spire more turbinate raised. The filleted colouring is very indistinct, and the ground-colour of a particular livid hue.



NATICA.

PLATE XXIX.

Figures considerably magnified.

Species 135. (Mus. Cuming.)

NATICA PISIFORMIS. *Nat. testâ angustè profunde umbilicatâ, globosâ, solidiusculâ, spirâ utinâ, anfractibus superè obtusè productis, deinde plano-convexis, aperturâ oblongo-ovata, columellâ superè subcallosâ, sordide albâ.*

THE PEAN-SHAPED NATICA. Shell narrowly deeply umbilicated, globose, rather solid, spire very small, whorls obtusely produced round the upper part, then slightly convex, aperture oblong-ovate, columella slightly callous at the upper part; dull white.

RECLUZ, *Proc. Zool. Soc.* 1843, p. 213.

Hab. Valparaiso; Cuming.

A small pea-like shell, obtusely gibbous round the upper part, with the umbilicus rather deeply excavated

Species 136. (Mus. Cuming.)

NATICA ASELLUS. *Nat. testâ obtusè umbilicatâ, obliquè globosâ, subtus depressâ, spirâ brevissimâ, anfractibus convexis, levigatis, nitentibus, prope suturam absente plicato-striatis, aperturâ semilunari-ovata, columellâ callositate latâ multilinea tegente; albâ, fasciis duabus latiusculis carulis-nigricentibus circumdatâ, punctura serie utinâ in intersitio.*

THE LITTLE ASS NATICA. Shell with a covered umbilicus, obliquely globose, depressed beneath, spire very short, whorls convex, smooth, shining, faintly plicately-striated next the suture, aperture semilunar-ovate, columella with a broad callosity covering the umbilicus; white, encircled with two rather broad blue-black bands, with a minute series of dots in the intersices.

Hab. Australia.

An interesting small species, in which the painting is not much unlike that of the *Cyprea asellus*.

Species 137. (Mus. Cuming.)

NATICA TRAILLI. *Nat. testâ subaqualiter umbilicatâ, conoideo-globosâ, solidiusculâ, spirâ parvâ, anfractibus superè declivibus, subtus penultimè plano-convexis, aperturâ ovata, columellâ callositate latâ multilinea*

ferè tegente; albâ, lineis rufo-fuscis nudatis irregularibus unâque longitudinaliter pictâ, callositate rufo-fuscâ.

TRAILL'S NATICA. Shell largely umbilicated, conoidly globose, rather solid, spire small, whorls slanting round the upper part, peculiarly flatly excavated beneath, aperture ovate, columella with a broad callosity nearly covering the umbilicus; whitish, painted longitudinally throughout with wavy irregular red-brown lines, callosity red-brown.

Hab. Malacca.

A characteristic solid species, curiously excavated and obtusely angled at the base, painted throughout with irregularly wavy red-brown lines.

Species 138. (Mus. Cuming.)

NATICA VENUSTULA. *Nat. testâ obtusè umbilicatâ, semi-globosâ, spirâ obtusè conoidâ, anfractibus convexis, levibus, nitentibus, aperturâ lunari-ovata, columellâ latè callosâ, multilinea impente; albâ, junctâ suturam opacâ, deinde lineis rufo-fuscis acutè nudatis pictâ.*

THE PRETTILY-MARKED NATICA. Shell with a covered umbilicus, semiglobose, spire obtusely conoid, whorls convex, smooth, shining, aperture lunar-ovate, columella broadly callous, filling the umbilicus; white, opaque next the suture, then marked with zigzag red-brown lines.

PHILIPPI, *Zeitschrift für Malac.* 1851.

Hab. — ?

The chief peculiarity of this little species consists in its opaque-white zone round the upper portion of the whorls, from which the light red-brown zigzag lines suddenly depend.

Species 139. (Mus. Cuming.)

NATICA SUFFUSA. *Nat. testâ oblongo-ovata, solidâ, spira obtusè conoidâ, anfractibus declivi-convexis, levibus, aperturâ semilunari-ovata, basi productâ, columellâ callositate latâ multilinea tegente; pelliculo-albâ, hic illuc opacâ, cæcis apicem violaceo-tinctâ, callositate violacâ.*

THE SCFFUSED NATICA. Shell oblong-ovate, solid, spire obtusely conoid, whorls slantingly convex, smooth, aperture semilunar-ovate, produced at the base, columella with a broad callosity covering the umbilicus; transparent white, here and there opaque, tinged with violet towards the apex, callosity violet.

Hab. New Ireland.

An obtusely conoid species, of solid growth, though subtransparent in character, delicately tinged with violet, the colour being most conspicuous on the callosity.

Species 140 (Mus. Cuming.)

NATICA SACULA. *Nat. testâ obtusè umbilicatâ, subquadrato-globosâ, solidâ, spirâ minutâ, anfractibus superiorè obtusè rotundatis, deinde subplanatis, apertura semilunari-ovata, columellâ callositate latâ rotundatâ umbilicem tegente; sordidè lutescente-albâ, apice lividi.*

THE LITTLE NUT NATICA. Shell with a covered umbilicus, somewhat squarely globose, solid, spire very small, whorls obtusely rounded at the upper part, then rather flattened, aperture semilunar-ovate, columella with a broad button-like callosity covering the umbilicus: dull yellowish-white, livid at the apex.

Hab. New Ireland.

This little solid species, from the same locality as the preceding, is peculiarly squarely compressed round the periphery, and has a characteristic small livid spire.

Species 141. (Mus. Cuming.)

NATICA IMMACULATA. *Nat. testâ angustissimè profundè umbilicatâ, ovato-globosâ, solidiusculâ, spirâ minutâ, subersortâ, anfractibus plano-concavis, apertura oblongo-ovata, columellâ superne subcallosâ; sordidè albâ.*

THE SPOTLESS NATICA. Shell very narrowly deeply umbilicated, ovately globose, rather solid, spire minute, a little exerted, whorls flatly convex, aperture oblong-ovate, columella rather callous at the upper part; dull white.

TOTTEN, Silliman's Journal, vol. xxviii. p. 351. f. 6.

Hab. Bay of Massachusetts, United States (found plentifully in the stomachs of fishes); Gould.

Very closely allied to the little *N. pisiformis* from Valparaiso, but the spire is rather more exerted, and the umbilicus more contracted.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.



Fig. 8.



Fig. 9.



Fig. 10.

NATICA.

PLATE XXX.

Species 142. (Fig. 142, 144, 145, and 146.
Mus. Cuming.)

NATICA HELIROIDES. *Nat. testâ rix rimato-umbilicatâ, acatâ, Ampullariæformi, spirâ exsertâ, suturâ conspicuè canaliculatâ, anfractibus convexis, basia cæcus subrotundatim productis, aperturâ ovatâ, basi effusa, columellâ tenuiter marginatâ; calcareo-albâ, epidermide tenui coracâ deciduâ imbutâ.*

THE HELIX-LIKE NATICA. Shell slightly edge-umbilicated, ovate, Ampullaria-like, spire exerted, suture conspicuously channelled, whorls convex, somewhat attenuately produced towards the base, aperture ovate, effused at the base, columella thinly edged; chalk-white, covered with a thin yellowish horny deciduous epidermis.

JOHNSTON, Trans. Nat. Hist. Soc. of Berwick-on-Tweed, for 1835.

Natica canaliculata, Gould

Natica Islandica, Gmelin

Hab. North Seas.

The accompanying figures, 142, 144, 145, and 146, selected to represent *N. Helioides*, *canaliculata*, and *Islandica*, as so many distinct species, are without doubt

one and the same. It has much the appearance of an *Amphelicio* or *Paludosa*, but may be readily distinguished by its more calcareous marine aspect and deciduous epidermis.

Species 143. (Mus. Cuming.)

NATICA CORNEA. *Nat. testâ vixante rimato-umbilicatâ, acatâ, tenui, subinflatâ, spirâ exsertâ, suturâ canaliculatâ, anfractibus convexis, ad basin rotundato-productis, aperturâ ovatâ, columellâ tenuiter marginatâ; calcareo-albâ, epidermide coracâ fuscâ deciduâ imbutâ.*

THE HORNY NATICA. Shell minutely edge-umbilicated, ovate, thin, rather inflated, spire exerted, suture channelled, whorls convex, rotundately produced at the base, aperture ovate, columella thinly edged; chalk-white, covered with a brown horny deciduous epidermis.

MOLLER, Ind. Moll. Grœnlandiæ, p. 7

Hab. Grœnland.

Lovén quotes this as a synonyme of the preceding species, but it is of a more broadly inflated form, and characterized by a darker epidermis.

NATICA.

	Plac.	Pag.		Plac.	Pag.
Adansonii, <i>Rever</i>	XIX.	83	<i>charaxa</i> , <i>Deshayes</i>	XXI.	69
<i>Adansonii</i> , <i>Philippi</i>	XIV	61	<i>effusa</i> , <i>Soraniusou</i>	IV.	15
<i>adpersa</i> , <i>Menke</i>	V.	15	<i>elegans</i> , <i>Recluz</i>	XX.	67
<i>affinis</i> , <i>Busch</i>	XX.	20	<i>Elenee</i> , <i>Recluz</i>	XXI.	94
<i>albida</i> , <i>Recluz</i>	VI.	23	<i>enazona</i> , <i>Recluz</i>	XXV.	67
<i>albumen</i> , <i>Louaneck</i>	VIII.	31	<i>Enabel</i> , <i>Recluz</i>	XIX.	83
<i>ala-papilionis</i> (<i>Verillo</i>), <i>Chemn.</i>	XIV.	60	<i>fibula</i> , <i>Rever</i>	XXVIII.	150
<i>Alpeii</i> , <i>Foibes</i>	XXXII.	106	<i>filosa</i> , <i>Sowerby</i>	XXVII.	72
<i>arachnoidea</i> , <i>Lamarck</i>	XIV.	61	<i>flava</i> , <i>Gould</i>	XXIV.	116
<i>asellus</i> , <i>Rever</i>	XXIX	136	<i>Flemingiana</i> , <i>Recluz</i>	XXVIII.	80
<i>articulata</i> , <i>Philippi</i>	XIV.	60	<i>Florida</i> , <i>Rever</i>	XXV.	64
<i>aurantia</i> , <i>Louaneck</i>	VI.	20	<i>fluctuata</i> , <i>Sowerby</i>	III.	10
<i>Baconii</i> , <i>Rever</i>	X.	37	<i>forata</i> , <i>Rever</i>	XXVIII.	129
<i>bifasciata</i> , <i>Gray</i>	X.	10	<i>Forskaliu</i> (<i>Verillo</i>), <i>Chemnitz</i>	XIV.	59
<i>bifasciata</i> , <i>Recluz</i>	XIV.	61	<i>Fortunei</i> , <i>Rever</i>	XXVI.	123
<i>bivulvata</i> , <i>Beck</i>	XXV.	113	<i>Francisca</i> , <i>Recluz</i>	XXVII.	127
<i>borealis</i> , <i>Sowerby</i>	XXVI.	120	<i>fulgurans</i> , <i>Recluz</i>	XXII.	100
<i>Boerhavianni</i> , <i>Recluz</i>	XIV	61	<i>fulminea</i> (<i>Verillo</i>), <i>Gmelin</i>	XIV.	61
<i>Broderipiana</i> , <i>Recluz</i>	XX.	66	<i>Gallapagosae</i> , <i>Recluz</i>	XIX.	86
<i>bulbosa</i> , <i>Rever</i>	XXVI.	119	<i>Gambiee</i> , <i>Recluz</i>	XXIII.	105
<i>Buriansensis</i> , <i>Recluz</i>	XXVII.	128	<i>gemmans</i> , <i>Rever</i>	XXVI.	121
<i>Caillandi</i> , <i>Recluz</i>	XXVIII.	132	<i>glabella</i> , <i>Rever</i>	XXVII.	124
<i>Campanchiensis</i> , <i>Recluz</i>	I.	1	<i>glauca</i> , <i>Humboldt</i>	II.	5
<i>canaliculata</i> , <i>Gould</i>	XXX	142	<i>glauca</i> , <i>Louaneck</i>	III.	8
<i>cancelata</i> , <i>Lamarck</i>	XXI.	95	<i>globosa</i> , <i>Chemnitz</i>	XI.	46
<i>candidissima</i> , <i>Recluz</i>	XIX.	84	<i>Groenlandica</i> , <i>Beck</i>	XXI.	96
<i>candibissima</i> , <i>Le Gallou</i>	VIII.	28	<i>Guateriana</i> , <i>Petit</i>	XXV.	114
<i>canrena</i> , <i>Linnaeus</i>	IV.	14	<i>Guillevanti</i> , <i>Payraudeau</i>	XXIII.	106
<i>Caribbaea</i> , <i>Philippi</i>	XXV.	118	<i>Haaveli</i> , <i>Recluz</i>	XXI.	94
<i>castanea</i> , <i>Lamarck</i>	XII.	50	<i>Helicoides</i> , <i>Johanson</i>	XXI.	142
<i>catenata</i> , <i>Philippi</i>	XXI.	92	<i>holenava</i> , <i>Lamarck</i>	XI.	46
<i>Chemnitzii</i> , <i>Recluz</i>	II.	7	<i>heros</i> , <i>Say</i>	I.	2
<i>Chemnitzii</i> , <i>Menke</i>	XIII.	52	<i>ianthostoma</i> , <i>Deshayes</i>	XXVIII.	79
<i>Chinensis</i> , <i>Louaneck</i>	XIX.	82	<i>Islandica</i> ? <i>Gmelin</i>	XXX.	142
<i>clausa</i> , <i>Recluz</i> aut <i>Sor.</i>	XXV.	113	<i>immaculata</i> , <i>Tortosa</i>	XXIX.	141
<i>collaria</i> , <i>Louaneck</i>	XX.	87	<i>imperfata</i> , <i>Sowerby</i>	XXIII.	77
<i>Collicii</i> , <i>Recluz</i>	XXIV	112	<i>inaperta</i> , <i>Philippi</i>	XXV.	113
<i>columnaris</i> , <i>Recluz</i>	V.	19	<i>Lucii</i> , <i>Philippi</i>	XX.	89
<i>conica</i> , <i>Louaneck</i>	XII.	48	<i>imtemerata</i> , <i>Philippi</i>	IX.	33
<i>consolidata</i> , <i>Courthouy</i>	XXV.	113	<i>intermedia</i> , <i>Recluz</i>	VI.	21
<i>cornu</i> , <i>Moller</i>	XXX	143	<i>intricata</i> (<i>Verillo</i>), <i>Douvan</i>	XXII.	97
<i>cora</i> , <i>D'Orbigny</i>	XXVI.	122	<i>Jamaicensis</i> , <i>C. B. Adams</i>	XXVIII.	131
<i>crenata</i> , <i>Recluz</i>	XIV.	60	<i>Jukesii</i> , <i>Rever</i>	XIX.	84
<i>crenata</i> , <i>Lamarck</i>	XIV	61	<i>Lamarckiana</i> , <i>Recluz</i>	II.	6
<i>Cuningiana</i> , <i>Recluz</i>	IV.	13	<i>leucophaea</i> , <i>Rever</i>	XII.	51
<i>deciodosa</i> , <i>Rever</i>	IX.	35	<i>lineata</i> , <i>Louaneck</i>	VII.	24
<i>dense maculata</i> , <i>Chemnitz</i>	V.	18	<i>locellus</i> , <i>Rever</i>	XXVIII.	134
<i>Draparnaudii</i> , <i>Recluz</i>	XI.	44	<i>maculata</i> , <i>Philippi</i>	XXVIII.	133
<i>dubia</i> , <i>Recluz</i>	X.	41	<i>maculata</i> , <i>Deshayes</i>	V.	18
<i>duplicata</i> , <i>Say</i>	II.	4	<i>maculosa</i> , <i>Louaneck</i>	XIII.	57

NATICA.—INDEX.

	Plate	Species.		Plate	Species.
Mabeense, <i>Recluz</i>	XIV.	58	rufa (<i>Verita</i>), Born	XVI.	70
namilla, <i>Lamarck</i>	VII.	27	rufilabris, <i>Reeve</i>	XXIII.	103
mamillarlis, <i>Lamarck</i>	VIII.	29	rutila, <i>Macgillivray</i>	XXVII.	125
Marochiensis, <i>Lamarck</i>	XIII.	52	Sagraina, <i>D'Orbigny</i>	XXIV.	111
Maura, <i>Bruguière</i>	VII.	25	stagnivalenta, <i>Deshayes</i>	XXVIII.	78
melanostoma, <i>Lamarck</i>	VIII.	30	Sebae, <i>Soubigel</i>	XXVII.	74
melanostomoides, <i>Quoy</i>	XXII.	101	semisulcata, <i>Gray</i>	XXV.	116
melastoma, <i>Swainson</i>	XXVIII.	78	Senegalensis, <i>Recluz</i>	XIV.	61
millipunctata, <i>Lamarck</i>	VII.	26	Simie (<i>Ronan</i>), <i>Chemnitz</i>	XXVII.	76
monifera, <i>Lamarck</i>	XII.	50	<i>Staioides</i> , <i>Recluz</i>	XXVII.	76
Montagui, <i>Förbes</i>	XXVII.	125	septentrionalis, <i>Beck</i>	XI.	13
nitida (<i>Verita</i>), <i>Dunovan</i>	XXIII.	106	solida, <i>Bluiarville</i>	XVI.	71
nucula, <i>Reeve</i>	XXIX.	140	sordida, <i>Swainson</i>	IX.	34
opaca, <i>Recluz</i>	VIII.	30	spadicea, <i>Guélin</i>	III.	9
orientalis (<i>Verita</i>), <i>Guélin</i>	XVI.	69	spualida, <i>Macgillivray</i>	XII.	50
pallida, <i>Recluz</i>	IV.	13	sterceus-auscarnae, <i>Enc. Méth.</i>	VII.	26
Panamaensis, <i>Recluz</i>	III.	11	Strangei, <i>Reeve</i>	XXIII.	81
patula, <i>Sowerby</i>	5	5	subfulca, <i>Chemnitz</i>	XVI.	69
pavimentum, <i>Recluz</i>	XXVIII.	132	Succinioides, <i>Reeve</i>	XXVII.	73
pellis-tigrina, <i>Chemnitz</i>	XIII.	55	suffusa, <i>Reeve</i>	XXIX.	139
perspicua, <i>Recluz</i>	IV.	12	sulcata (<i>Verita</i>), <i>Born</i>	XXI.	95
Petiveriana, <i>Recluz</i>	V.	17	teniola, <i>Menke</i>	XIV.	60
Philippiana, <i>Recluz</i>	XI.	45	Taslei, <i>Recluz</i>	XV.	66
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pisiformis, <i>Recluz</i>	XXIX.	135	triseriata, <i>Say</i>	XXIV.	109
plicatula, <i>Nuttall</i>	XXIII.	107	uber, <i>Fabacienus</i>	XII.	54
plumbea, <i>Lamarck</i>	IX.	34	umbilicata, <i>Quoy</i>	XXIV.	108
porcellanea, <i>D'Orbigny</i>	XXIII.	102	unifasciata, <i>Lamarck</i>	XII.	49
Powisiana, <i>Recluz</i>	VI.	22	unimaculata, <i>Reeve</i>	XIX.	85
Primus, <i>Recluz</i>	IX.	36	Valencianensis, <i>Pavandeu</i>	XXII.	97
problematica, <i>Reeve</i>	VI.	21	variabilis, <i>Recluz</i>	XXIII.	104
proxima, <i>C. B. Adams</i>	XXVII.	126	variolaria, <i>Recluz</i>	XIII.	55
pulcaris, <i>Philippi</i>	XV.	63	Vavaosi, <i>Le Guillou</i>	XXII.	99
punctata, <i>Swainson</i>	XIV.	61	venusta, <i>Philippi</i>	XXIX.	138
pusilla, <i>Say</i>	XXV.	117	vestalis, <i>Philippi</i>	X.	38
pyramis, <i>Reeve</i>	XXI.	93	violacea, <i>Sowerby</i>	XV.	65
pyriformis, <i>Recluz</i>	V.	16	vitellus, <i>Lamarck</i>	X.	39
rapulum, <i>Reeve</i>	XII.	47	Zanzibarica, <i>Recluz</i>	XXII.	75
ravida, <i>Soubigel</i>	XVI.	68	zebra, <i>Lamarck</i>	XIII.	53
Raynaudiana, <i>Recluz</i>	XIII.	56	Zelandica, <i>Quoy</i>	XX.	90
Recluziana, <i>Deshayes</i>	I.	3	zonaria, <i>Lamarck</i>	XIV.	60
rhodostoma, <i>Philippi</i>	XX.	65			

ERRATA.

- Sp. 53. For *N. alabaster*, *Reeve*, read *N. albocostata*, *Philippi*, *Proc. Zool. Soc.* 1851.
 Sp. 58. For *N. intermedia*, *Philippi*, read *N. vestalis*, *Philippi*, *Proc. Zool. Soc.* 1851.
 Sp. 60. Add as synonymus *N. atrivoluta*, *Philippi*, and *N. tenuis*, *Menke*.
 Sp. 61. Add as synonymus *N. Adamsi*, *Philippi*.
 Sp. 63. For *N. laevigata*, *Reeve*, read *N. pulcaris*, *Philippi*, *Kaster, Conch. Cab. Antae*, p. 90, pl. 43, l. 9.
 Sp. 118. *N. Cristatus*, *Philippi*: add reference *Proc. Zool. Soc.* 1851.

MONOGRAPH
OF THE GENUS
N A V I C E L L A.

The monograph
of the Navicella works in concert with Gill's
"Hutchinson's" *Thalassia*.



1a.



7a.



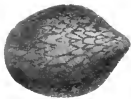
1b.



3a.



5a.



4a.



8a.



1c.

NAVICELLA.

PLATE I.

Genus NAVICELLA, Lamarck.

Testa oblongo-ovata, depressa, Patelliformis, interdum concentricè striata, sapius laevigata, olivaceo-lutea vel viridescens, nigro plerumque reticulata, spirâ nullâ, vertice ad marginem subobliquè reflexo, interdum rostrato, labro simplici, arâ columellari tenui, planâ, septiformi, aperturâ peramplâ, impressionibus muscularibus duabus distinctis. Operculum testaceum, subquadratum, planum, dente laterali acuto.

Shell oblong-ovate, depressed, Patella-shaped, sometimes concentrically striated, more frequently smooth, olive-yellow or greenish, generally reticulated with black, no spire, vertex rather obliquely inflected, sometimes beaked, lip simple, columellar area thin, flat, septum-like, aperture very large, muscular impressions two, distinct. Operculum testaceous, nearly square, flat, with a sharp tooth at the side.

The *Navicella* are a group of the very characteristic family of fresh-water Nerites, in which the shell assumes a more open Limpet-like form. The spire, which in *Nerita* and *Neritina* is convoluted in a very simple manner, and is, in some species, so concealed as scarcely to show any convolution, is here transformed into the simple nucleus of a spire with the vertex inflected, as in some of the Limpets, into a beak. The callous expansion of the columella, typical of this family, which is often so broadly and thickly developed in *Neritina*, is in *Navicella* modified into a positive septum or shelf, forming, so to speak, the poop of the little boat.

There is not much variation either of form or painting in the *Navicella*. They are mostly of an olive-yellow or greenish colour, reticulated or blotched with black, but a few are semitransparent and tinged with rose. Only five species were known to Lamarck. The exploration of the rivers, during the last few years, in the islands of the Eastern and South-Eastern Seas have brought many more species to light, and the number is increased to upwards of thirty. The *Navicella* are not found in Europe nor in any part of the Western Hemisphere. Their chief habitats are the Philippine and Australian Islands, the New Hebrides, New Ireland, and New Caledonia.

Species 1. (Fig. a, b, Mus. Cuming.)

NAVICELLA JANELLE. *Nac. testâ oblongo-ovata, convexo-depressâ, olivaceo-luteâ, lineis obliquis nigricante-ri-*

ditibus reticulatâ, interdum nigro concentricè maculatâ, intus carulescente, arâ columellari aurantio-tinctâ.

JANELLE'S NAVICELLA. Shell oblong-ovate, convexly depressed, olive-yellow, reticulated with oblique blackish-green lines, sometimes concentrically blotched with black; interior bluish, columellar area tinged with orange.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 376.

Hab. Guam (in the river Umata); Janelle. Philippine Islands (in mountain streams); Cuming.

A fine large oval species, reticulated or blotched with blackish-green upon an olive-yellow ground.

Species 2. (Fig. a, b, Mus. Cuming.)

NAVICELLA BIMACULATA. *Nac. testâ subquadrato-ovata, convexo-depressâ, lutescente, lineis nigris oblique angulato-reticulatâ; intus carulescente, arâ columellari angustâ, aurantio-reflexo marginatâ, maculis duabus nigris notatâ.*

THE TWO-SPOTTED NAVICELLA. Shell somewhat squarely ovate, convexly depressed, yellowish, obliquely blotch-reticulated with black lines; interior bluish, columellar area narrow, edged with orange-red, marked with two black blotches.

Hab. Mauritius.

Characterized by two black blotches on the columellar area, which is rather narrow and tipped with orange-red, and, externally, by a rather blotchy kind of network.

Species 3. (Fig. a, b, Mus. Cuming.)

NAVICELLA DEPRESSA. *Nac. testâ obovata, depressâ, sub-luteo subexpansâ, olivaceo-luteâ, nigro maculato-reticulatâ; intus carulescente, arâ columellari porcincolâ aurantio-rufa tinctâ.*

THE DEPRESSED NAVICELLA. Shell oblong-ovate, depressed, rather expanded beneath, olive-yellow, blotch-reticulated with black; interior bluish, columellar area rather small, tinged with orange-red.

LESSON, *Voy. de la Coquille, Zool.* p. 358.

Eadem var. *Navicella rubra*, Lesson.

Hab. Tahiti.

Distinguished by a depressly expanded form, which reduces the columellar area to a crescent shape

NAVICELLA.—PLATE I

Species 4. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA FREYCIENETI. *Nac. testâ ovatâ, gibbosâ, apicem versus subrostratâ, concentricè nitidè striatâ, sordide olivaceâ, lineis fuscis concentricè dense nodulatis; utas caralescente, areâ columellari latiusculâ, medio peculiariter linguatâ, versus marginem aurantio-rufo tinctâ.*

FREYCIENET'S NAVICELLA. Shell ovate, gibbous, somewhat beaked towards the apex, concentrically neatly

striated, dull olive, densely concentrically waved with brown lines; interior bluish, columellar area rather broad, peculiarly tongued in the middle, tinged towards the margin with orange-red.

RECLUZ, Revue Zool. Soc. Cuvierienne, 1841, p. 375

Hab. New Hebrides.

Well distinguished by its gibbous slightly beaked form, and peculiar tongue-like process of the columellar area.



21



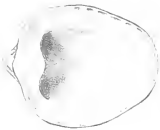
22



23



24



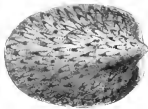
25



26



27



28



29



30

NAVICELLA.

PLATE II.

Species 5. (Fig. *a, b, c*, Mus. Cuming.)

NAVICELLA ORBICULARIS. *Nac. testâ suborbiculari, ventricosâ, fulvescente, olivaceo-nigro promiscuè reticulatâ vel maculatâ, intus cœrulescente, arèâ columellari subangustâ, convexâ.*

THE SLIGHTLY ORBICULAR NAVICELLA. Shell suborbicular, ventricose, fulvous, promiscuously reticulated or blotched with olive-black, interior bluish, columellar area rather narrow, concave.

SOWERBY, Tankerville Catalogue, App. p. 10. n. 1092.

Hab. Philippine Islands: Cuming.

Chiefly distinguished by its light gibbous form and loosely reticulated painting.

Species 6. (Mus. Cuming.)

NAVICELLA PORCELLANA. *Nac. testâ subtriangulo-ovata, solidiusculâ, olivaceo-nigro densè reticulatâ, intus cœrulescente, margine subexpansâ, arèâ columellari distinctâ, ad latera nigro maculatâ.*

THE PORCELAIN NAVICELLA. Shell somewhat triangularly ovate, rather solid, closely reticulated with olive-black, interior blue, margin rather expanded, columellar area slanting, blotched with black at the sides.

Patella porcellana, Linnæus, Mus. Lud. Ulric. p. 659. n. 411.

Nerita porcellana, Chemnitz.

Navicella porcellana, Deshayes.

Patella Bourbonica, Bory St. Vincent

Crepidula Bourbonica, De Boissy

Septaria Bourbonica, De Férussac.

Navicella elliptica, Lamarek

Scandalianna pictura, Schumacher.

Hab. Islands of Bourbon, Rodriguez, Mauritius, and Madagascar; Recluz.

The articulated painting of this old Linnæan species is

extremely thick-set, leaving only minute triangular spaces of yellowish ground at irregular intervals.

Species 7. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA CUMINGANA. *Nac. testâ subtriangulo-ovata, versus apicem subrostratâ, ad latera expansâ, olivaceo-lavâ, nigricante-fusco concentricè undulatâ, intus cœrulescente, arèâ columellari angustâ, margine archi subproducto.*

CUMING'S NAVICELLA. Shell somewhat triangularly ovate, slightly beaked towards the apex, expanded at the sides, olive-yellow, concentrically waved with blackish-brown, interior bluish, columellar area narrow, margin slightly produced in the middle.

RECLUZ, MS. Mus. Cuming.

Hab. Philippine Islands.

The painting of this fine species consists throughout of concentric rings of irregularly waved blackish-brown lines.

Species 8. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA VARIABILIS. *Nac. testâ oblongo-ovata, convexo-gibbosâ, versus apicem subrostratâ, concentricè striatâ, solidè olivaceâ, nigro obscurè reticulato-maculatâ, intus livido-cæruleâ, arèâ columellari areolatâ.*

THE VARIABLE NAVICELLA. Shell oblong-ovate, convexly gibbous, somewhat beaked towards the apex, concentrically striated, dull olive, obscurely reticulatedly shaded with black, interior livid blue, columellar area arched.

RECLUZ, MS. Mus. Cuming.

Hab. Philippine Islands

Of a very regular oblong-oval form, sculptured with a well-marked concentric striae, the network painting being obscured by patches of shading.



13



14a



16a



15a



17



16



17a



18a



18



19a

NAVICELLA.

PLATE III.

species 9. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA LENTIGINOSA. *Nac. testâ subtrigono-ovata, sublus convexo-expansâ, olivaceo-luteâ, nigricante-fusco-muliepe nitidè lincatâ et lentiginosâ, intus cerulescente, areâ columellari porci, convexo-declivi.*

THE FRECKLED NAVICELLA. Shell somewhat triangularly ovate, concavely expanded beneath, olive-yellow, neatly lined and freckled throughout with blackish-brown, interior bluish, columellar area small, concavely slanting.

Hab. — ?

Distinguished by its triangularly expanded form and neatly freckled painting.

Fig. 10. (Mus. Cuming.)

The shell here figured represents the *Navicella elliptica* of Lamarck, which is a variety of the Linnean *N. porcellana*.

Species 11. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA LUZONICA. *Nac. testâ angustè ovatâ, gibbosa, ad apicem conspicuè rostratâ, concentricè rufè striatâ, fulco-castaneâ, immaculatâ; intus cerulescente, areâ columellari aurantio-rufo lincatâ.*

THE LUZON NAVICELLA. Shell narrowly ovate, gibbous, conspicuously beaked at the apex, concentrically rufely striated; fulvous chestnut, unspotted, interior bluish, columellar area tinged with orange-red.

SOLEYET, Recluz, Revue Zool. Soc. Cuvierienne, 1841, p. 375.

Hab. Island of Luzon, Philippines (in mountain streams on stones); Cuming.

Of a characteristic narrow, gibbous, boat-like form, fulvous-chestnut in colour, destitute of any marking.

Species 12. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA SCARABÆUS. *Nac. testâ oblongo-ovata, convexo-depressâ, sublus planatâ, apice rotundè eroso, concentricè rufè striatâ, nigricante-castaneâ, nitente, cornea, intus cerulescente, areâ columellari angustissimâ, crassâ, declivi, caruco-rosâ.*

THE BEETLE NAVICELLA. Shell oblong-ovate, convexly depressed, flattened beneath, apex bluntly eroded, concentrically rufely striated, blackish chestnut, shining, horny, interior bluish, columellar area very narrow, thick, slanting, flesh-rose.

Hab. Hamond's Island, Australian Seas.

A very peculiar oblong-oval species, depressly flattened beneath, with a narrow, thickly callous, columellar area. The outer surface of the shell is covered with a hard, horny epidermis.

Species 13. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA LIVIDA. *Nac. testâ subtrigono-ovata, convexo-apicem gibbosa, sordidè livido-olivaceâ, obscurè reticulatâ, intus livido-cerulescente, areâ columellari convexo-planâ.*

THE LIVID NAVICELLA. Shell somewhat triangularly ovate, gibbous towards the apex, dark livid olive, obscurely reticulated, interior livid blue, columellar area concavely flattened.

Hab. — ?

Allied to *N. suborbicularis*, but of a different form and general livid hue.



15a



15b



16a



16b



17a



17b



18a



18b



19a



19b

NAVICELLA.

PLATE IV.

Species 14. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA COOKII. *Nar. testâ suboblongo-ovata, tenuicula, gibbosa, fetescente, olivaceo-nigro obscure late reticulata, iatus caralescente, medio rufescente tinctâ, area columellari parvâ, pallidissime infescente.*

COOK'S NAVICELLA. Shell suboblong-ovate, rather thin, gibbous, light fulvous, obscurely broadly reticulated with olive-black, interior bluish, tinged with red in the middle, columellar area small, very faintly tinged with red.

RECLUZ. M.S. Mus. Cuming.

Hab. Philippine Islands: Cuming.

A light gibbous species, allied to *N. suborbiculæris*, somewhat peculiarly contracted.

Species 15. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA AFFINIS. *Nar. testâ ovata, sultus subexpansâ, olivaceo-lutea, nigra dense reticulata, iatus caralescente, area columellari lutescente, concolor-declivi.*

THE ALLIED NAVICELLA. Shell ovate, rather expanded beneath, olive-yellow, densely reticulated with black; interior bluish, columellar area yellowish, concavely slanting.

Hab. ———?

There is little to distinguish this species from *N. depressa* in point of colouring, but it may be recognized by a difference of form.

Species 16. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA MAGNIFICA. *Nar. testâ oblongo-ovata, utrinque attenuatâ, concentricè dense elevato-striatâ, nigricante-fusâ, epidermide cornâ, apice multo crasso, iatus caralescente, area columellari plano-declivi, aurantio-rufo tinctâ.*

THE MAGNIFICENT NAVICELLA. Shell oblong-ovate, attenuated at each end, concentrically densely elevately striated, dark brown, epidermis horny, apex much

eroded, interior bluish, columellar area flatly slanting, tinged with orange-red.

Hab. Hawond's Island, Australian Seas.

This fine species is of a bold expanded oblong-ovate form, rather attenuated at each end, covered with a dark bright brown epidermis, sculptured throughout with concentric rings of raised striae.

Species 17. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA SANGUISUGA. *Nar. testâ elongato-ovata, subobliquè emarginatâ, gibbosa, apice obsolete, concentricè rufè annulato-striatâ, nigricante-fusâ, epidermide cornâ, iatus caralescente, area columellari terminali, crassa, callosa, plus minus crassa.*

THE LEECH NAVICELLA. Shell elongately ovate, somewhat obliquely curved, gibbous, apex obsolete, concentrically rudely ring-striated, blackish-brown, epidermis horny, interior bluish, columellar area terminal, thick, callous, more or less eroded.

Hab. New Caledonia.

Of a peculiar elongately ovate form, obliquely curved, with an eroded sinus on the inner side, which seems to indicate that this shell may prove to be typical of a new genus. The columellar area forms a thickly flatly eroded shelf across the end. Externally the epidermis is horny.

Species 18. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA HAUSTECUM. *Nar. testâ ovata, sultus excavatâ, gibbosa, apice rostrato, olivaceo-luteâ, nigra dense reticulatâ, iatus caralescente, area columellari parvisculâ, albicante.*

THE SCOOP NAVICELLA. Shell ovate, excavated beneath, gibbous, apex beaked, olive-yellow, densely reticulated with black, interior bluish, columellar area rather small, whitish.

Hab. New Caledonia.

Of a more than usual excavated gibbous growth, with painting similar in character to that of *N. depressa*.



191



192



193



194



195



197



198



199



200

NAVICELLA.

PLATE V.

Species 19. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA CREPIDULOIDES. *Nar. testâ subangustè ovatâ, depressâ, versus apicem attenuatè rostratâ, subius concavatâ, cœruleo-nigrâ, olivaceo-luteo minutè fuculatâ et punctatâ, arca columellari latâ, plano-declivi, tenui, semipellucidâ.*

THE CREPIDULA NAVICELLA. Shell rather narrowly ovate, depressed, attenuately beaked towards the apex, excavated beneath, blue-black, minutely lined and dotted with olive-yellow, columellar area broad, flatly slanting, thin, semitransparent.

Hab. ———

Of depressly excavated growth, peculiarly attenuated and beaked towards the apex, the columellar area having the appearance of a thin septum as in some species of *Crepidula*.

Species 20. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA RETICULATA. *Nar. testâ depressè ovatâ, tenui, semipellucidâ, lobescente, apicem versus roseo-fuculatâ, olivaceo-nigrâ apertè reticulatâ, arca columellari parvâ.*

THE RETICULATED NAVICELLA. Shell depressly ovate, thin, semitransparent, yellowish, tinged with rose towards the apex, openly reticulated with olive-black, columellar area small.

Hab. Ceylon.

A thin semitransparent oblong-square ovate shell, reticulated with a rather large open pattern.

Species 21. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA INSIGNIS. *Nar. testâ subtrigono-ovata, peculiariter depressissimè expansâ, concentricè rufè concavatâ, apicem versus marginatè, olivaceo-nigrâ, versus marginem lobescente punctatâ, intus cœrulescente, arca columellari parvâ, contractâ.*

THE REMARKABLE NAVICELLA. Shell somewhat triangularly ovate, peculiarly very depressly expanded,

concentrically rudely wrinkled, apex not marginal, olive-black, dotted with yellow towards the margin, interior bluish, columellar area small, contracted.

Hab. Sumatra; Captain Martin.

Remarkably distinguished by its depressly expanded *Patella*-like form, the margin being produced much beyond the apex.

Species 22. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA APIATA. *Nar. testâ octo-trigona, utrinque alatâ, depressissimâ, olivaceo-nigrâ antipè pulcherrimè minutissimè reticulatâ, intus cœrulescente, maculis sub-apicis duabus nigris, arca columellari angustâ.*

THE FINELY-NETTED NAVICELLA. Shell ovately triangular, winged on each side, very depressed, beautifully finely netted throughout with olive-black, interior bluish, with two rather large black spots, columellar area narrow.

LE GUILLOU, Recluz, Revue Zool. Soc. Cuvierienne, 1841 p. 376.

Hab. Nukuhiva, Feejee Islands.

Conspicuously characterized by its depressed winged expansion, and peculiarly neat minute reticulated marking.

Species 23. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA PSITTACEA. *Nar. testâ angustè ovatâ, versus apicem attenuatè rostratâ, rufè gibbosâ, arca, obscure reticulatâ, intus cœrulescente, arca columellari declivi, marginem medio conspicuè producto, superâ rufo-fuculatâ.*

THE PARROT-BEAK NAVICELLA. Shell narrowly ovate, attenuately beaked towards the apex, very gibbous, black, obscurely reticulated, interior bluish, columellar area slanting, margin conspicuously produced in the middle, tinged with red at the upper part.

Hab. Australian Islands.

A narrow gibbous shell, of light substance, attenuately beaked towards the apex, with the columellar area produced in the middle into a tongue-like process.



22a



23a



24a



25a



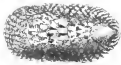
26a



27a



28a



29a



30a



31a

NAVICELLA.

PLATE VI.

Species 24. (Fig. *a, b, c*, Mus. Cuming.)

NAVICELLA CLYPEOLUM. *Nac. testā subquadrato-ovata, tenuiculā, expansā, concentricē dense striatā, lutescenti-fusco reticulatim variegatā, saturatē fusco interdatum radiatā, apice coso, arcū columellari curvatā.*

THE LITTLE-SHIELD NAVICELLA. Shell somewhat squarely ovate, rather thin, expanded, concentrically densely striated, yellowish, reticulately variegated with brown, sometimes rayed with dark brown, apex rose, columellar area curved.

RECLUZ, MS. Mus. Cuming.

Evident varieties. *Navicella atro* and *radiata*, Reeve, in Conch. Syst.

Hab. Philippine Islands (in mountain-streams on stones); Cuming.

A light squarely ovate variegated species, with a characteristic rose apex.

Species 25. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA PULCHELLA. *Nac. testā compressē ovatā, dense concentricē striatā, nigrā, versus marginem nigro et luteo pulchre tessellatā, arcū columellari parvisculatā.*

THE PRETTY NAVICELLA. Shell compressly ovate, densely concentrically striated, black, towards the margin prettily tessellated with black and yellow, columellar area rather small.

Hab. —?

A black compressly ovate shell, neatly tessellated towards the margin with yellow.

Species 26. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA EXIMIA. *Nac. testā suboblongo-quadrata, versus apicem contractā, concentricē dense striata, apice rostrato, lutescente, olivaceo-nigro tessellatā et interitum unbeculatā, intus pellucido-ceruleovente, arcū columellari latiusculā, arcualio-pofu tinctā.*

THE DELICATE NAVICELLA. Shell somewhat oblong-square, contracted towards the apex, concentrically densely striated, apex beaked, yellowish, tessellated and sometimes clouded with olive-black, interior transparent blue, columellar area rather broad, tinged with orange-red.

Hab. Ceylon; F. Layard.

A semitransparent tessellated species, marked with a characteristic pattern and colour.

Species 27. (*a, b, c*, Mus. Cuming.)

NAVICELLA TESSELLATA. *Nac. testā angustē ovatā, tenuiculā, dense concentricē striatā, apice subrostrato, lutescente, olivaceo-nigro promiscuē tessellatā et variegatā apice roseo, arcū columellari curvatā.*

THE TESSELLATED NAVICELLA. Shell narrowly ovate, rather thin, densely concentrically striated, apex rather beaked, yellowish, promiscuously tessellated and variegated with olive-black, apex tinged with rose, columellar area arched.

LAMARCK, *Anim. sans vert.* vol. viii. p. 564.

Hab. Philippine Islands (in mountain-streams on stones); Cuming.

Of a narrower oblong form than either of the preceding species of the same type, and more promiscuously tessellated.



28a



28b



29a



29b



30a



30b



31a



31b



31c



32a

NAVICELLA.

PLATE VII.

Species 28. (Fig. *a, b, c*, Mus. Cuming.)

NAVICELLA MACROCEPHALA. *Nac. testâ latè ovatâ, convexiusculâ, apice subangulo, castaneo-fuscâ vel olivaceâ, lineis nigris apertè notatâ, areâ columellari concentricâ-rufa fiatâ.*

THE LARGE-HEADED NAVICELLA. Shell broadly-ovate, somewhat swollen, apex rather large: chestnut-brown or olive, laced with zigzag black lines, columellar area tinged with orange-red.

DELLON, *Revue Zool. Soc. Cuvierienne*, 1841, p. 374.

Hab. Fiji Islands.

Very characteristic broadly-ovate species, convexly swollen towards the apex.

Species 29. (Fig. *a, b, c, d*, Mus. Cuming.)

NAVICELLA CERULLSCENS. *Nac. testâ ovatâ, apice sub-ristatâ, concentricè tenuistriatâ, tenui, cærulescente, olivaceo-nigro coriè subtilissimè tessellatâ et variegatâ, tubercula fuscâ, areâ columellari subangustâ.*

THE FLUSH NAVICELLA. Shell ovate, rather beaked at the apex, concentrically finely striated, thin, bluish.

variously finely tessellated and clouded with olive-black, sometimes banded, columellar area rather narrow.

Hab. Calcutta (in the streets of the city and in the Botanic Gardens).

A light grey tessellated species, small and obscure in pattern, and extremely variable.

Species 30. (Fig. *a, b, c*, Mus. Cuming.)

NAVICELLA BOUGAINVILLE. *Nac. testâ ovatâ, apicem versus convexiusculâ, olivaceâ, lineis nigris nudatis pictâ, tubus cæruleâ, areâ columellari angustâ, maculis duabus nigris notatâ.*

BOUGAINVILLE'S NAVICELLA. Shell ovate, convexly swollen towards the apex, olive, painted with wavy black lines, interior blue, columellar area narrow, marked with two black spots.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 374.

Hab. New Ireland.

Distinguished by its peculiar wavy-line painting and internal black blotches.



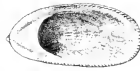
37a



35a



36a



37a



37a



37b



37b



37a



37b



37b

NAVICELLA.

PLATE VIII.

Species 31. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA LINEATA. *Nac. testâ elongato-ovata, ad latera compressâ, tenui, diaphanâ, apice rostrato, pellucidolutescente, punctis nigris sagittiferis aspersâ, arâ columellari latiusculâ.*

THE LINEATED NAVICELLA. Shell elongately ovate, compressed at the sides, thin, diaphanous, apex beaked, transparent yellow, sprinkled with black arrow-headed dots, columellar area rather broad.

LAMARCK, Encyclopédie Méthodique, pl. 456. f. 2 *a, b*.

Septaria navicula, De Férussac.

Hab. Philippine Islands.

The most elongated and transparent of the genus, marked with rays of arrow-headed black dots upon a transparent yellowish ground.

Species 32. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA ENTRECASTAUXII. *Nac. testâ sublongitato-ovata, ad latera compressâ, apice rostrato, tenui, subdiaphanâ, luteo-rosâ vel pellucido-alivaceâ, lineis subcircularibus reticulatis radiatâ, arâ columellari parvisensâ, arcuatâ.*

ENTRECASTAUX'S NAVICELLA. Shell sub-elongately ovate,

compressed at the sides, apex beaked, thin, subdiaphanous, livid rose or transparent olive, rayed with clouded reticulating lines, columellar area rather small, arched.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 380.

Hab. Point Entrecastaux, King George's Harbour, Australia.

Of a similar transparent substance to the preceding species, less elongated in form, of a delicate rose-yellow tinge, reticulated rayed with black lines.

Species 33. (Fig. *a, b*, Mus. Cuming.)

NAVICELLA ORIENTALIS. *Nac. testâ ovata, ad latera subcompressâ, tenui, subdiaphanâ, lobreolate-griseâ, punctis nigricantibus reticulatis aspersâ, arâ columellari subangustâ, arcuatâ.*

THE EAST INDIAN NAVICELLA. Shell ovate, slightly compressed at the sides, thin, subdiaphanous, yellowish-grey, reticulated sprinkled with blackish dots, columellar area rather narrow, arched.

Hab. Calcutta (in the Botanic Garden).

A somewhat rudely compressed semitransparent shell, faintly reticulated sprinkled with black dots.

LATIA.

Genus LATIA, Gray.

Testa tenuis, subcornea, ovata, depressè pileiformis, vertice obliquè intorto, subrostrato; intus septo arcuato, margine subreflexo, ad vertexlateam unam acutè producta.

Shell thin, rather horny, ovate, depressly cap-shaped, vertex obliquely twisted in and slightly beaked; interior marked with an arched shelf, a little turned up at the edge, which is sharply produced at one end.

The two little shells here figured with the *Navicelle* present a distinct typical character, partaking almost equally in the general features of convolution and texture with *Amytus*. Dr. Gray, while distinguishing them in our national collection by the generic title of *Latia*, places them near the latter genus; but in the absence of any knowledge of the animal, their position in the system can only be a matter of conjecture. They are of thin, olive or greenish, horny substance, with the spire obliquely twisted in, having an opaque white septum in the interior, similar in a measure to that of *Navicella* or *Colyptra*, but presenting a peculiar modification, the edge being slightly bent upwards and prolonged at one end into a sort of spine.

Both species are from New Zealand.

Species 1. (Fig. 34 *a, b*, Mus. Cuming.)

LATIA NERITOIDES. *Lat. testâ ovata, levigatâ, vertice unâtilineato, producto; olivaceo-cornuâ.*

THE NERITE-LIKE LATIA. Shell ovate, smooth, vertex rather swollen, produced; olive-horny.

GRAY, MS. Mus. Brit.

Hab. New Zealand; Earl.

This species, the smaller of the two which at present constitute this genus, has the vertex the more swollen and produced in proportion to the size of the shell.

Species 2. (Fig. 35 *a, b*, Mus. Cuming.)

LATIA LATERALIS. *Lat. testâ subquadrato-ovata, subcompressâ, obscure lateraliter sulcatâ; cinereo-cornuâ.*

THE LATERAL LATIA. Shell somewhat squarely ovate, rather depressed, obscurely grooved at the side; greenish-horny.

GOULD, MS. Mus. Cuming.

Hab. New Zealand; Hart, R.N.

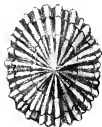
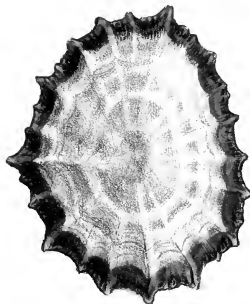
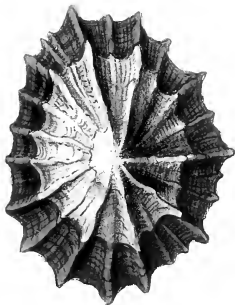
Rather larger than the preceding species, and more squarely depressed in general contour. The vertex is less prominent, and the side of the shell is faintly grooved.

NAVICELLA.

<i>acilis, Reece</i>	IV		<i>Jauchii, Recluz</i>	I			1
<i>apiata, Le Guillou</i>	V	22	<i>lentiginosa, Reece</i>	III.	9		9
<i>bimaculata, Reece</i>	I.	2	<i>lunata, Lamarek</i>	VIII.	34		34
<i>Bougainvillii, Recluz</i>	VII	30	<i>livida, Reece</i>	III.	13		13
<i>cerulescens, Reece</i>	VII	29	<i>Luzonica, Soleyet</i>	III.	11		11
<i>clypeolum, Recluz</i>	IV.	24	<i>macrocephala, Le Guillou</i>	VII.	28		28
<i>Cookii, Recluz</i>	IV	14	<i>magnifica, Reece</i>	IV.	16		16
<i>Crepiduloides, Reece</i>	V.	19	<i>orbicularis, Sowerby</i>	II.	5		5
<i>Cumingiana, Recluz</i>	II.	7	<i>orientalis, Reece</i>	VIII.	33		33
<i>depressa, Lessou</i>	I.	3	<i>porcellana (Potilla), Lima</i>	II.	6		6
<i>elliptica, Lamarek</i>	II.	6	<i>psittacea, Reece</i>	V.	23		23
<i>Entrecaustausii, Recluz</i>	VIII	32	<i>pulegiella, Reece</i>	VI.	25		25
<i>eximia, Reece</i>	VI	26	<i>reticulata, Reece</i>	V	20		20
<i>Freyineti, Recluz</i>	I	1	<i>sanguinea, Reece</i>	IV.	17		17
<i>haustorium, Reece</i>	IV	18	<i>scaberrima, Reece</i>	III	12		12
<i>insignis, Reece</i>	V	27	<i>stellata, Lessou</i>	VI	27		27

MONOGRAPH
OF THE GENUS
SIPHONARIA.

"Eat single, or with mate
Graze the seaweed, their pasture,
And through groves of coral stray."—*M. D. C.*



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31

SIPHONARIA.

PLATE I.

Genus SIPHONARIA. *Sowerby.*

Testa ovata, anae elevato-conica, recte truncata, anae depressa, radiata costata vel laticata, aequae dentatata. Impressio muscularis antice interrupta, latero-cunali plus minus distincte laticata.

Shell ovate, sometimes elevately conical, uncinata at the top, sometimes depressed, radiately ribbed or striated, denticulated at the margin. Muscular impression interrupted in front, more or less distinctly marked, with a canal leading to the side.

The attention of Mr. Sowerby was first attracted to this group of Limpets, as distinguished from the ordinary *Patella*, by the impressed mark, on one side of the interior, of an outlying siphon. The animal was successively anatomized by De Blainville and M. Quoy, and a structure corresponding with this mark was found in the form of a canal, used for the conveyance of water to the branchial cavity, which proved to be situated in the back of the neck. The first recognized species were described and figured by Mr. Sowerby, in his 'Genera of Shells.' The soft parts were figured by M. Quoy in the 'Voyage de l'ASTROLABE,' but several of the shells named in that work as distinct species, and reproduced as such by M. Deshayes in his edition of Lamarck's 'Animaux sans vertèbres,' appear to be varieties of one and the same species in different states. With the aid of a numerous series of specimens of *Siphonaria*, collected together by Mr. Cuming. I have been enabled to define many new species, and remove previous errors, the whole forming an exceedingly natural group, all readily distinguished by their variations of form, sculpture, and internal colouring.

The *Siphonaria*, as will be seen on reference to the habitats, are widely distributed in both hemispheres.

Species 1. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA DIEMENSIS. *Siph. testā ovata, convexa, recte acuta, radiata costata, costis amarosis, cunabibus, irregularibus; costis albidis, interstitiis versus marginem cinereo-rufescentibus, aequae latus conspicuè castaneo albique lineolata.*

THE VAN DIEMEN'S LAND SIPHONARIA. Shell ovate, convex, sharp at the top, radiately ribbed, ribs numerous, rude, irregular; ribs white, interstices ash-red towards the margin, margin conspicuously lined within with chestnut and white.

QUOY and GAIMARD. *Voy de l'ASTROLABE*, vol. ii. p. 327 pl. 25. f. 1-12.

Hab. Van Diemen's Land.

An acutely convex species, irregularly closely ribbed, with the interstices excavately grooved, and further distinguished by the inner margin being conspicuously testiculated.

Species 2. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA SCABRA. *Siph. testā orbiculati, subdepressè convexa, recte obtuse acuminata, radiata costata, costis rudibus, scabris; costis sordide albidis, interstitiis purpureo-fuscescentibus, latus purpureo-lineata.*

THE ROUGH SIPHONARIA. Shell orbicular, rather depressly convex, obtusely pointed at the top, radiately ribbed, ribs rude and scabrous; ribs dirty-white, interstices purple-brown, interior purple-lined.

Hab. Port Jackson, Australia.

Of a more orbicular form than the preceding species, with the ribs more rough and irregular, and the shell being of thinner substance, the purple linear painting is seen running up further in the interior.

Species 3. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA GIANS. *Siph. testā elevato-convexa, radiata fortiter costata, costis rude angulatis, acutis, interstitiis striatis; fovea, versus marginem nigricante lineata.*

THE GIANT SIPHONARIA. Shell elevately convex, radiately strongly ribbed, ribs rudely angled, sharp, interstices striated; brown, stained with black towards the margin.

SOWERBY, *Tankerville Catalogue*, App. p. vii. n. 808.

Hab. Galapagos Islands and Panama.

This fine species is well distinguished by its strong, rude, angularly raised ribs, radiating from the top like buttresses.

Species 4. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA DENTICULATA. *Siph. testā ovata, crassius-*

cula, subregulari, depressè convexâ, radiatim costata, costis rudibus, alternatim majoribus; intus livido-castaneâ, margine albo maculata.

THE TOOTHED SIPHONARIA. Shell ovate, rather thick, somewhat irregular, depressly convex, radiately ribbed, ribs rude, alternately larger, interior livid chestnut, white-spotted at the edge.

QUOY and GAIMARD, Voy. de l'Astrolabe, vol. ii. p. 340 pl. 25, f. 19 and 20.

Hab. Australia.

Chiefly distinguished by the livid brown colouring of the interior and short white tessellated spots of the inner margin.

Species 5. (Fig. *a, b*, Mus. Cuming.)

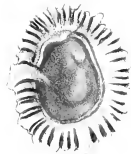
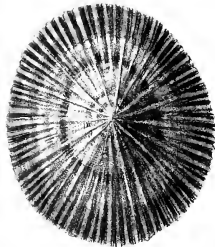
SIPHONARIA LEVISCULA. *Siph. testa suborbiculari, elevatè convexâ, vertice anticè subinclinato, radiatim lividâ et salicâ, lris lœvibus, sordidè cinerâ, intus purpureo-cinereâ, margine rix denticulatâ.*

THE SMOOTH SIPHONARIA. Shell suborbicular, elevatedly convex, top a little inclined anteriorly, radiately ridged and grooved, ridges smooth; dirty-ash, interior purple-red, scarcely denticulated at the edge.

DE BLAINVILLE, MS. Mus. Cuming.

Hab. Valparaiso.

An orbicular raised shell, with the top a little inclined towards the front. The outer surface is only superficially ridged, while the interior is of a peculiar purple-red colour.



SIPHONARIA.

PLATE II.

Species 6. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA FUSCICULATA. *Siph. testâ ovata, elevatâ, promissè densè costatâ et liratâ; costis lirisque opaco-
albis, interstitiis fuscosecutibus.*

THE CORDED SIPHONARIA. Shell ovate, raised, promiss-
ously densely ribbed and ridged; ribs and ridges
opake white, interstices light brown.

Hab. Van Diemen's Land.

A raised ovate species, closely rayed throughout with
opake white ribs and ridges upon a light brown ground,
with the siphon very distinctly indicated in the interior.

Species 7. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA CANCER. *Siph. testâ suboblongo-ovata, em-
presso-depressâ, eadè irregulari, radiatâ costatâ, costis
fortibus, rubris, subcorrugatis, tribus prope siphonem
distantibus; sordidè purpurasecutis-fuscâ.*

THE CRAB SIPHONARIA. Shell somewhat oblong-ovate,
convexly depressed, very irregular, radiately ribbed,
ribs strong, rude, subcorrugate, three next the siphon
distant; dull purple-brown.

Hab. New Zealand.

A rather depressly convex species, rayed with subcorruga-
te rude ribs, three of which on the side of the siphon are
widely separated.

Species 8. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA CHARACTERISTICA. *Siph. testâ rotundatâ,
elevato-conicâ, radiatâ obscure liratâ et striatâ; cir-
cum-nigricante, prope verticem ferrugiâ, liris al-
bidis.*

THE CHARACTERISTIC SIPHONARIA. Shell rounded,
elevately conical, radiately obscurely ridged and stri-
ated; cinder-black, rusty-brown near the top, ridges
whitish.

REEVE, *Conch. Systematica*, vol. ii. pl. 138. f. 3.

Hab. Galapagos Islands and Panama.

Of a very elevated conical form, merely sculptured with
rather obscure ridges and striae.

Species 9. (Fig. *a, b, c, d*, Mus. Cuming.)

SIPHONARIA SIPHO. *Siph. testâ subacutè conicâ, Balu-
niformâ, variè radiatâ costatâ et liratâ; costis liris-
que opaco-albis, interstitiis purpurasecutis-fuscis.*

THE SIPHON SIPHONARIA. Shell somewhat acutely conic-
al, Balanus-shaped, variously radiately ribbed and
ridged; ribs and ridges opake white, interstices pur-
ple-brown.

OWERLEY, *Genera of Shells, Siphonaria*, f. 1 and 4.

Siphonaria exigua, Sowerby.

Siphonaria crebricostata, Nuttall.

Siphonaria albicans, Zelandica, *acuta*, *puactata*, and
plicata; Quoy and Gaimard.

Hab. Philippine Islands.

This species, of which fine specimens, such as those
figured, were collected in abundant variety by Mr. Cuming
at the Philippine Islands, differs materially in the character
of its sculpture, the ribs being sometimes numerous and
close-set, as in Mr. Sowerby's typical specimen, sometimes
distant, with small intervening ridges, as in *S. exigua* of
the same author.



11a



11b



11c



12a



13a



13b



14a



15a



15b



16a

SIPHONARIA.

PLATE III.

Species 10. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA VENOSA. *Siph. testā ovata, elevato-conical, crassinuculā, radiatim dense striatā, striis nigris, elevato-nuculis.*

THE VEINED SIPHONARIA. Shell ovate, elevately conical, rather thick, radiately densely striated, striae black, somewhat raised.

Hab. Cape Coast

A raised oblong conical species, of rather solid growth, characterized within and without with pencil-black raised lines.

Species 11. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA LINEOLATA. *Siph. testā depresso-ovata, tenui, radiatim obtuse costatā, costis latis, versus verticem obsolete; pellucido-fuscā, nigra tinctā, costis pellucidis.*

THE LINEOLATE SIPHONARIA. Shell depressly ovate, thin, radiately obtusely ribbed, ribs broad, obsolete towards the top; transparent brown, black-stained, ribs transparent white.

SOWERBY, Pro. Zool. Soc. 1835, p. 6.

Siphonaria plana, Quoy and Gaimard.

Hab. Chili and Central America (on rocks in exposed situations): Cuming.

Chiefly distinguished by its broad sinuated transparent white superfacial ribs.

Species 12. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA OBLIQUATA. *Siph. testā ovato-oblongā, subdepresso, radiatim obliquatē tiratā, vertice uncinatā; viresco-fuscā.*

THE CROOKED SIPHONARIA. Shell ovately oblong, rather depressed, radiately crookedly ridged, vertex uncinately: ash-brown.

SOWERBY, Tankerville Catalogue, App. p. 7. n. 809.

Siphonaria scutellina, Deshayes.

Hab. New Zealand.

This oblong species, quite unique in form and dimensions, has a sharp uncinately apex, and is crookedly distorted throughout.

Species 13. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA CONCINNA. *Siph. testā subdepresso-ovata, acute radi costatā, costis unacrisis; costis albidis, intersitiis ferrugineo-nigris.*

THE NEAT SIPHONARIA. Shell subdepressly ovate, sharply rudely ribbed; ribs white, interstices rusty-black.

SOWERBY, Genera of Shells, f. 1 and 2.

Hab. Gambia and Mauritius.

Of a characteristic oval dish-shape, neatly coloured with shining purple-black between the white ribs.

Species 14. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA ATRA. *Siph. testā depresso-ovata, tenui, radiatim costatā, costis subacutis, irregularibus, intersitiis striatis; pellucido-nigrā aut rubro-fuscā, costis albidis.*

THE BLACK SIPHONARIA. Shell depressly ovate, thin, radiately ribbed, ribs rather sharp, irregular, with the interstices striated; transparent black or red-brown ribs whitish.

QUOY and GAIMARD, Voy. de l'Astrolabe, vol. ii. p. 337 pl. 25, f. 41, 42.

Siphonaria Coreocis, Adams and Reeve.

Hab. Singapore, Corea, Island of Vanikoro.

Closely allied to *S. lineolata*, though sufficiently distinguished by the ribs being more pronounced, with intervening striae.



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SIPHONARIA.

PLATE IV.

Species 15. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA EQUILORATA. *Siph. testā oblongo-oratā, irregulari, concavo-depressā, vertice mucronatā, deorsū calē lividā, marginē tenuē denticulatā; sordidē fuscā, intus purpureo-roseā.*

THE FRINGED SIPHONARIA. Shell oblong-ovate, irregular, convexly depressed, mucronate at the top, densely rudely ridged, margin finely denticulated; dirty brown, purple-chestnut within.

GRAY, MS., Mus. Cuming.
Hab. Mazatlan.

Closely allied to *S. denticulata*, but imemate at the top and more finely sculptured.

Species 16. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA FIGA. *Siph. testā ovatā, emarginatā, vertice submucronatā, radiatā costatā, costis partibus distantibus, lateribus striatis; intus calusque intus, costis albis.*

THE PIED SIPHONARIA. Shell ovate, convex, rather acuminate at the top, radiately ribbed, ribs strong, distant, striated in the inter-stices; black, ribs white, black within and without.

SOEWELBY, *Proc. Zool. Soc.* 1835, p. 6.
Hab. Acapulco.

Well characterized by its distant white ribs upon a black ground.

Species 17. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA BRASILIANA. *Siph. testā ovatā, depressiusculā, deorsū emarginato-costatā, vertice obtusā, sordidē albicantē, intus fuscā-alicā elongatē lividā.*

THE BRAZILIAN SIPHONARIA. Shell ovate, rather compressed, closely corrugately ribbed, top obtuse, dirty white, within elegantly lined with brown-black.

Hab. Rio Janeiro.

A rather depressly close-ribbed shell, elegantly pencilled with brown-black in the interior.

Species 18. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA PALPEBRUM. *Siph. testā ovatā, subemarginatā, emarginatā, radiatā deorsū striatā, stris nigris, elevatisculis.*

THE EYE-LID SIPHONARIA. Shell ovate, somewhat irregular, convex, radiately densely striated, striae black, slightly raised.

Hab. Lisbon.

Sculptured round the margin with closely-set parallel black striae.

Species 19. (Fig. *a, b*, Mus. Cuming.)

SIPHONARIA COSTATA. *Siph. testā ovatā, acuminate-oratā, testā, vertice mucronatā, radiatā corrugato-costatā, costis lateribus partibus absconditis; sordidē emarginatā, intus purpureo-roseā.*

THE RIBBED SIPHONARIA. Shell ovate, acuminate, convex, thin, top mucronate, radiately wrinkle-ribbed, ribs sometimes partially obsolete; dull ash, interior purple-red.

SOEWELBY, *Proc. Zool. Soc.* 1835, p. 6.
Hab. Guacema, Central America.

Of rather than rapid growth, deep purple-red in the interior.

March, 1856.



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SIPHONARIA.

PLATE V.

Species 20. (Mus. Cuming.)

SIPHONARIA KURRACHENSIS. *Siph. testā depresso-conica, subacutē costatā, livā centrali strigose in interstitiis, siphone subsensipiente, alba, crassa plus minus livatā, prope verticem nigra pallidē radiatā.*

THE KURRACHEE SIPHONARIA. Shell depressly conical, rather sharply ribbed, with a central ridge and striae in the interstices, siphon rather conspicuous; white, more or less tinged with yellow, faintly rayed with black near the top.

Hab. Kurrachee, Seinde.

Dis-tinctly rayed with small equidistant ribs, faintly impressed towards the top with black hair-lines upon a white ground tinged with yellow.

Species 21. (Mus. Cuming.)

SIPHONARIA ZEBRA. *Siph. testā depresso-conicā, radiatā costatā et livatā, costis irregularibus, livā illū conspicuā, siphone distinctā; alba, muculis nigris nūdā et duabus.*

THE ZEBRA SIPHONARIA. Shell depressly conical, radiately ribbed and ridged, ribs irregular, here and there conspicuous, siphon distinct; white, with one or two black blotches.

Hab. Philippine Islands.

Of more irregular uncouth growth than the preceding species, ribbed more on one side and blotched quite promiscuously with black.

Species 22. (Mus. Cuming.)

SIPHONARIA BILUCAYANA. *Siph. testā perpendiculari, tenuicōnā, radiatā costatā, livā, obtusā, subsuperfici-cinris; lutescentē-albā, costarum interstitiis nigra radiatā.*

THE BIFURCATE SIPHONARIA. Shell very depressly conical, rather thin, radiately ribbed, ribs broad, obtuse, rather superficial; yellowish-white, interstices between the ribs rayed with black.

Hab. Port Jackson, Australia; Strange.

A rather flat thin species, rayed with obtuse superficial

ribs, the interstices between which are stained with rusty-black.

Species 23. (Fig. a, b, Mus. Cuming.)

SIPHONARIA TRISTANENSIS. *Siph. testā ovato-conicā, tenuicōnā, vertice subobliquē acuminatō et intorto; surculis rirescentē, livāis fasciis irregulariter radiatis fibris, intus vitule costarū.*

THE TRISTAN SIPHONARIA. Shell ovately conical, rather thin, vertex somewhat obliquely acuminate and twisted in; dull greenish, irregularly radiately threaded with bifurcate brown lines, interior shining chestnut.

SOVERBY, Gemma of Shells, f. 3.

Patefia Tristanensis, Leach.

Siphonaria Lessoni, Blainville.

Hab. Tristan D'Acunha, West Indies.

Of the same obliquely intorted *Cepalus* type as the preceding species, but more erect.

Species 24. (Fig. a, b, Mus. Cuming.)

SIPHONARIA REDIMICULUM. *Siph. testā truncatē conicā, Cepuliformatā, vertice conspicuē obliquē intortā, sub-obsolete radiatā livatā, tenuicōnā; surculis nigris.*

THE BONNET SIPHONARIA. Shell tumidly conical, *Cepalus*-shaped, with a vertex conspicuously obliquely twisted in, rather obsolete radiately ridged, rather thin; dirty black.

Hab. ———?

Curiously distinguished by its light *Cepalus*-like form, with the vertex being prominently obliquely twisted inwards.

Species 25. (Fig. a, b, Mus. Cuming.)

SIPHONARIA MACGILLIVRAYI. *Siph. testā ovatā, conicā, Cepuliformatā, vertice obliquē intorto, obsolete costatā, costis distinctibus, surculis fasciis, intus vitule costarū.*

MACGILLIVRAY'S SIPHONARIA. Shell ovate, conical, *Cepalus*-shaped, with vertex obliquely twisted in-

SIPHONARIA.—PLATE V.

wards, obsolete ribbed, ribs distant: dirty brown,
interior shining chestnut

Hab. Island of St. Paul's

Of the same *Copulius* type as the two previous species,
small and faintly distantly ribbed.

Species 26. (Mus. Cuming.)

SIPHONARIA FERRUGINEA. *Siph. testā subdepressa, ca-*
ditia costatis, costis acutis, rubris, irregularibus.

siphone conspicuo: sordide nigrescente, intus nigre-
castaneo varice linctā.

THE RUSTY SIPHONARIA. Shell rather depressed, ra-
diately ribbed, ribs sharp, rude, irregular, siphon
conspicuous: dirty blackish, variously stained within
with blackish-chestnut.

Hab. — ?

A depressed rudely ribbed species, promiscuously stained
within with blackish-chestnut, the margin being prettily
denticulated and edged with the same colour.



27 a



28 a



29 a



29 b



30 a



31 a



32 a



32 b



33 a



33 b



27a



27c



27b



27e



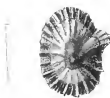
27d



27f



27g



27h



27i



27j

SIPHONARIA.

PLATE VII.

Species 32. (Fig. 1, 2, Mus. Cuming.)

SIPHONARIA SPINOSA. *Siph. testa ovata, lobatopressa, apice laterali uncinato, radiata dense costata; costis squamatis, pedibus spinuosis; sordide albicincta.*

THE SPINED SIPHONARIA. Shell ovate, rather depressed, apex laterally uncinato, radiately ribbed, ribs rather narrow, profusely squamately spinul, yellowish-white.

Hab. New Zealand.

Distinguished in a characteristic manner from all other species by its squamate spines.

Species 33. (Fig. a, b, Mus. Cuming.)

SIPHONARIA AMARA. *Siph. testa ovata, depresso-conoidi, apice antice uncinato, radiata dense costata et lirata; costis, albis, foveolis radiatis.*

THE BROWNISH SIPHONARIA. Shell ovate, depresso-conoid, apex anteriorly uncinato, radiately closely ribbed, and ridged; black, rayed with white bands.

NOVELL, MS., Mus. Cuming.

Hab. California.

Chiefly to be recognized by its white rays upon a darker-black ground.

Species 34. (Fig. a, b, Mus. Cuming.)

SIPHONARIA FOLIOXATA. *Siph. testa orbiculata, ovata, subdepressa, obscure radiata fimbriato-costata, costis et costis apicibus obsolete; costulae albae, ferrugineo-olivaceis interspersa uncinata.*

THE SOFT SIPHONARIA. Shell orbicularly ovate, rather depressed, obscurely radiately fimbriately ribbed, ribs

obsolete towards the apex, white, sparingly blotched with rusty-bands.

Hab. ———?

The ribs of this species have a furbelowed appearance near the margin, and are obsolete towards the apex.

Species 35. (Fig. a, b, Mus. Cuming.)

SIPHONARIA PUNCTULATA. *Siph. testa ovata, depresso-conoidi, apice antice uncinato, radiata dense elevato-striata; elevato-striata angustis, stris lividis.*

THE CORDED SIPHONARIA. Shell ovate, depresso-conoid, apex anteriorly uncinato, radiately densely elevately striated; blue-black, striae livid.

Hab. ———?

A somewhat conoid species, densely rayed with raised livid striae upon a black ground, the apex being slightly hooked anteriorly.

Species 36. (Fig. a, b, Mus. Cuming.)

SIPHONARIA MAURA. *Siph. testa ovata, subdepressa, apice antice uncinato, radiata livida, lris subdistinctis, interspersis striatis; sordide fuscoviridis, foveolis nigra punctuosa, latera albata alata.*

THE MOOR SIPHONARIA. Shell ovate, rather depressed, apex laterally uncinato, radiately ribbed, ridges rather distant, with the interspaces striated; dull brown, with a black band next the margin, interior shining black.

SOWERBY, PRO. Zool. Soc. 1855, p. 7.

Hab. Panama.

A little shining black species, rusty-brown exteriorly except next the margin.

SIPHONARIA

	Date	Species		Date	Species
<i>acuta</i> , Quoy	II.	9	<i>Karrackensis</i> , Reece	V.	20
<i>aquilorata</i> , Reece	IV.	15	<i>Lessoni</i> , Blainville	V.	23
<i>albicans</i> , Quoy	II.	9	<i>leviscula</i> , Blainville	I.	5
<i>amara</i> , Nuttall	VII.	33	<i>lineolata</i> , Sowerby	III.	11
<i>atra</i> , Quoy	III.	14	<i>Luzonica</i> , Reece	VI.	29
<i>Bavoni</i> , Reece	VI.	30	<i>Mae Gillivrayi</i> , Reece	V.	25
<i>bifurcata</i> , Reece	V.	22	<i>maura</i> , Sowerby	VII.	36
<i>Braziliana</i> , Reece	IV.	17	<i>obliquata</i> , Sowerby	III.	12
<i>caneer</i> , Reece	II.	7	<i>palpebrum</i> , Reece	IV.	18
<i>characteristica</i> , Reece	II.	8	<i>pica</i> , Sowerby	IV.	16
<i>cochleariformis</i> , Reece	VI.	28	<i>plana</i> , Quoy	III.	11
<i>concinna</i> , Sowerby	III.	13	<i>pleata</i> , Quoy	II.	9
<i>Corvensis</i> , Adams and Reece	III.	14	<i>psacata</i> , Quoy	II.	9
<i>corrugata</i> , Reece	VI.	31	<i>redimiculum</i> , Reece	V.	24
<i>costata</i> , Sowerby	IV.	19	<i>scabra</i> , Reece	I.	2
<i>crebri-costata</i> , Nuttall	II.	9	<i>scutellata</i> , Deshayes	III.	12
<i>dentiflata</i> , Quoy	I.	4	<i>sipho</i> , Sowerby	II.	9
<i>Dicmenensis</i> , Quoy	I.	1	<i>Siphojorensis</i> , Reece	VI.	27
<i>edigna</i> , Sowerby	II.	9	<i>spinosa</i> , Reece	VII.	32
<i>ferruginea</i> , Reece	V.	16	<i>Tristensis</i> , Sowerby	V.	23
<i>fuliginata</i> , Reece	VII.	34	<i>variosa</i> , Reece	III.	19
<i>funiculata</i> , Reece	II.	6	<i>zabra</i> , Reece	V.	21
<i>linata</i> , Reece	VII.	35	<i>Zobanovi</i> , Quoy	II.	9
<i>gigas</i> , Sowerby	I.	3			

ERRATA

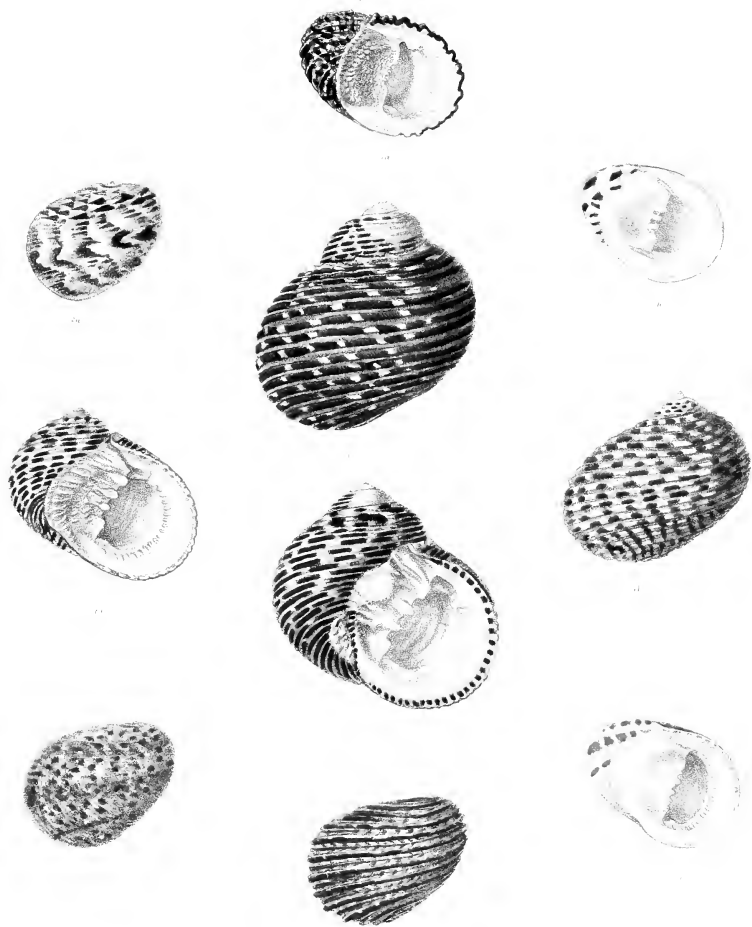
Sp. 17, Fig. 1. *Zobanovi* read *zabra*.

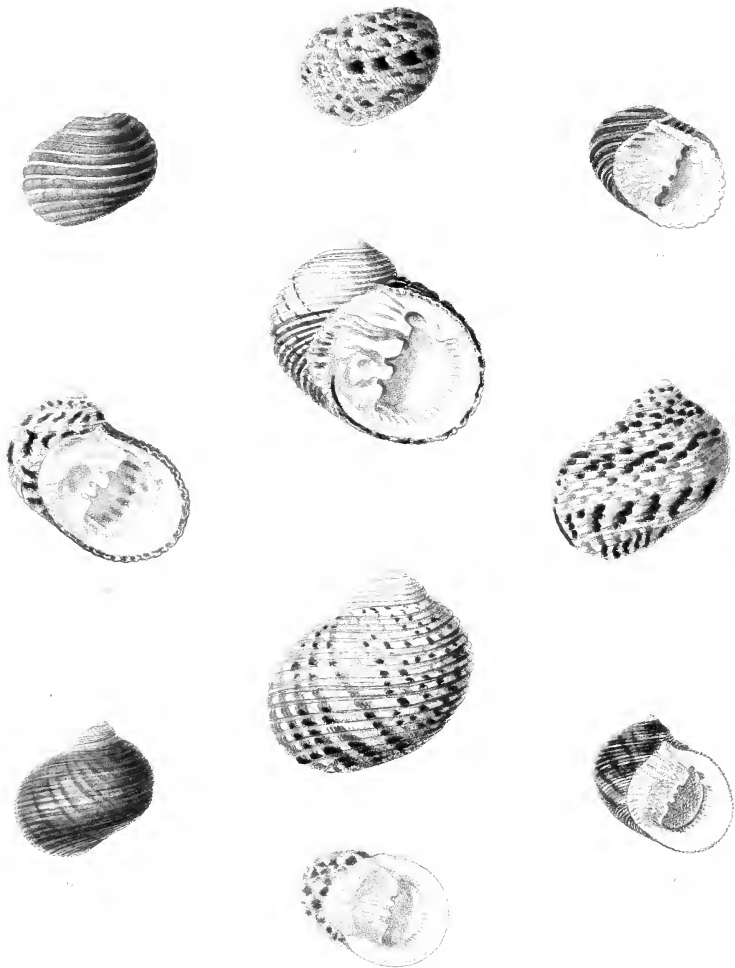
MONOGRAPH

OF THE GENUS

N E R I T A .

A field of beauty is a joy for ever. —Keats





NERITA.

PLATE II.

Species 5. (Mus. Cuming.)

NERITA ANTIQUATA. *Ner. testâ globosâ, solidâ, compactâ, spirâ plano-depressâ, anfractibus rotundatis, concentricè dense lirato-striatis, aperturâ intus incrassatâ, obsolete serratâ, arâ columellari leviter corrugatâ, bidentatâ; griseo-albâ, pallidè nigricante variè maculosa et lentiginosâ, columellâ vitellinâ.*

THE ANTIQUATED NERITE. Shell globose, solid, compact, spire flatly depressed, whorls rounded, concentrically closely ridge-striated, aperture thickened inwardly, obsolete serrated, columellar area faintly wrinkled, two-toothed; greyish-white, variously clouded and freckled with pale black, columella yelk-yellow.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 106.

Hab. Philippine Islands; Cuming.

A particularly rounded solid shell, compressed towards the spire, sculptured throughout with close-set concentric ridge-like striae, with a characteristic yelk-yellow stain across the toothed edge of the columella.

Species 6. (Mus. Cuming.)

NERITA COSTATA. *Ner. testâ globosâ, solidâ, spirâ obtusè planatâ, spirâ spirâ costatâ, costis rotundatis, regularibus, interstitiis nitidè exarvatis, aperturâ incrassatâ, fortiter serratâ et dentatâ, arâ columellari convexâ, corrugatâ, fortiter dentatâ; costis conspicuè carbonario-nigris, interstitiis fulvis, arâ columellari superne luteo tinctâ.*

THE RIBBED NERITE. Shell globose, solid, spire obtusely flattened, spirally ribbed, ribs rounded, regular, the interstices neatly excavated, aperture thickened, strongly serrated and toothed, columellar area convex, wrinkled, strongly toothed; ribs conspicuously coal-black, interstices yellowish, columellar area stained with yellow at the upper part.

CHEMNITZ, *Conch. Cab. vol. v. p. 299. pl. 191. f. 1966, 1967.*

Hab. Island of Nicobar.

A compressly rounded solid shell, conspicuously distinguished by its bold symmetrical coal-black ribs, yellowish in the interstices.

Species 7. (Mus. Cuming.)

NERITA DESHAYESI. *Ner. testâ globoso-turbinatâ, crassi, spirâ subserratâ, anfractibus superne subultrioribus, deinde rotundatis, spirâ spirâ costatis, costis turbatis, nuacrosis, valde irregularibus, subserratis, aperturâ incrassatâ, obsolete serratâ, dentatâ, arâ columellari prorsusè corrugatâ, robustissè fortiter dentatâ, lobositate-albâ, vacuole-nigro sparsim notatâ, columellâ inter dentes vitellinâ.*

DESHAYES' NERITE. Shell globosely turbinated, thick, spire rather exerted, whorls rather slanting at the upper part, then rounded, spirally ribbed, ribs thin, numerous, very irregular, subserrated, aperture thickened, faintly serrated, toothed, columellar area prominently wrinkled, very rudely strongly toothed; yellowish-white, sparingly waved with blue-black columella yelk-yellow between the teeth.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 104.

Hab. Panama.

Closely allied to *N. ornata*, from the same locality, but distinguished slightly and characteristically from that species in all particulars. It is turbinated, with the spire less exerted: the ribs are narrower and more irregular, and serrated; the colouring is waved, and the teeth are much more rudely developed.

Species 8. (Mus. Cuming.)

NERITA PELOKONTA. *Ner. testâ oblongo-globosâ, spirâ subserratâ, anfractibus superne concolor-declivibus, deinde rotundis, spirâ spirâ costatis, costis mediocribus, confertis, aperturâ intus incrassatâ, vie serratâ, arâ columellari concolor-erectâ, subirregulariter dentatâ, lutescente-albâ, nigro et rosso variè flexuosè maculatâ, arâ columellari et inter dentes sanguineo tinctâ.*

THE BLEEDING-TOOTH NERITE. Shell oblong-globose, spire somewhat exerted, whorls concavely slanting at the upper part, then rounded, spirally ribbed, ribs middling, close-set, aperture thickened inwardly, scarcely serrated, columellar area concavely excavated, somewhat irregularly toothed; yellowish-white, variously flexuosely spotted with black and crimson, columellar area and between the teeth blood-stained.

LINNEUS, *Syst. Nat.* (10th edit.), p. 778.

Hab. West Indies.

This well-known species is distinguished from all others by the remarkable blood-stain on the columellar area.

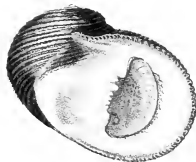
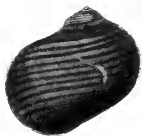
Species 9 (Mts. Cuming.)

NERITA TUNICLATA. *Ner. testâ ovata, solida, spirâ subconsertâ, angustibus rotundatis, liris tenuibus confertis, spiraliter foveolatis, aperturâ subincrassatâ, vix serratâ, subaapertè expansâ, areâ columellari promiscuè variegatâ, deulatâ, porpurascens-â-nigrâ, inter liras pallidâ.*

THE CORDED NERITE. Shell ovate, solid, spire slightly exerted, whorls rounded, spirally eorled with fine close-set ridges, aperture rather thickened, scarcely serrated, rather largely expanded, columellar area prominently wrinkled: purple-black, pale between the ridges.

Hab. — ?

The sculpture of this species resembles that of *N. l-arvata*, except that the ridges are closer set. In the broad expanded aperture and wrinkled columellar area, it differs from that species materially.



NERITA.

PLATE III.

Species 10. (Mus. Cuming.)

NERITA GROSSA. *Ner. testâ obliquè ovatâ, solidâ, spirâ parâ, riv exsertâ, spirâliter costatâ, costis rotundatis, elevatis, interstitiis subprofunde excavatis, lirâ internodiâ prope aperturam, aperturâ intus incrassatâ et serratâ, arâ columellari corrugatâ et rufè deutatâ; cinereo-griseâ, nigricante-olivaceo irregulariter articulatâ, apice lutescente.*

THE STOUT NERITE. Shell obliquely ovate, solid, spire small, scarcely exerted, spirally ribbed, ribs round, elevated, interstices rather deeply excavated, with an intermediate ridge next the aperture, aperture thickened and serrated inwardly, columellar area wrinkled and rudely toothed; ash-grey, irregularly articulated with blackish-olive, apex yellowish.

LINNEUS, Syst. Nat. (10th edit.), p. 778. Deshayes, Anim. sans vert. vol. viii. p. 614.

Hab. Island of Burias, Philippines (on the reefs at low water); Cuming.

Distinguished by its raised rounded ribs and excavated interstices, articulated with a characteristic olive-brown tone of colouring.

Species 11. (Mus. Cuming.)

NERITA NIGERIMA. *Ner. testâ ovato-globosâ, crassâ, spirâ parâ, subexsertâ, anfractibus superne concavo-planatis, divide convexis, loricibus, spirâliter sulcato-striatis, striis cæcis aperturam gradatim obsolete, aperturâ intus incrassatâ, tenè serratâ, penultimè expansâ, arâ columellari subobscure corrugatâ, leviter deuticulatâ; intus cinereo-nigrâ, internodiâ albipunctatâ, ad aperturam lutescente.*

THE VERY BLACK NERITE. Shell ovately globose, thick, spire small, rather exerted, whorls concavely flattened at the upper part, then convex, smooth, spirally groove-striated, striae gradually obsolete towards the aperture, aperture thickened inwardly, finely serrated, peculiarly expanded, columellar area obscurely wrinkled, slightly toothed; deep blue-black, sometimes white-dotted, yellowish at the aperture.

CHEMNITZ, Conch. Cab. vol. v. p. 309, pl. 192. f. 1985. 1986.

Nerita nterrima, Guérin.

Hab. — ?

A solid blue-black species, spirally groove-striated, the striae becoming gradually fainter as they approach the aperture, which is peculiarly rotundately expanded.

Species 12. (Mus. Cuming.)

NERITA PLEXA. *Ner. testâ ovato-globosâ, spirâ plano-convessâ, anfractibus spirâliter costatâ, costis alternâlia latis et angustis, subirregularibus, valique rugoso-serratis, aperturâ intus subincrassatâ, lirâ, arâ columellari plano-convessâ, granulatâ, cir deutatâ; allâ, maculis cinereo-nigris subrotundè tessellatâ, apice et arâ columellari lateo tinctis, fance latâ.*

THE PLATTED NERITE. Shell ovately globose, flatly compressed at the spire, whorls spirally ribbed, ribs alternately broad and narrow, rather irregular, rugosely serrated throughout, aperture slightly thickened within, ridged, columellar area flatly excavated, granulated, scarcely toothed; white, rather distantly tessellated with blue-black spots, apex and columellar area tinged with yellow, interior yellow.

CHEMNITZ, Conch. Cab. vol. v. p. 190. f. 1944, 1945.

Nerita testilis, Guérin.

Nerita veneta, Lamarck (not of Linneus).

Hab. Philippine Islands; Cuming.

In this well-known species the dark spots are blue-shaded and rather distant, on white ribs, which are alternately broader and narrower, while the apex is impressly flattened and yellowish.

Species 13. (Mus. Cuming.)

NERITA LINEATA. *Ner. testâ oblongo-ovatâ, subglobosâ, apice laterali, parvo exsertâ, anfractibus rotundatis, subangustis, nitidè dense spirâliter levulicatis, aperturâ subincrassatâ, serratâ, arâ columellari planâ, loricatâ, rufè rufè deuticulatâ; rosæo-cinereâ, lirâ purpureo-nigrâ, arâ columellari lateo tinctâ.*

THE LINEATED NERITE. Shell oblong-ovate, subglobose, apex lateral, but little exerted, whorls rounded, rather narrow, neatly closely finely spirally ridged, aperture slightly thickened, serrated, columellar area flat, smooth, rudely minutely toothed; pink-ash, ridges purple-black, columellar area stained with yellow.

June, 1855.

CHEMNITZ, Conch. Cab. vol. v. pl. 191. f. 1958, 1959.

Hab. Port Essington, North Australia. Philippine Islands.

Of an elegant oblong narrowly globose form, closely sculptured throughout with neat purple-black linear ridges upon a pink-ash ground, the columellar area being conspicuously stained with yellow.

Species 14. (Mus. Cuming.)

NERITA ASCENSIONIS. *Ner. testā ovato-turbinatā, spirā subexsertā, angustibus superiōre concavo-impressis, spirāliter costatis, costis rotundatis, subelevatis, undique tenuiserratis, intersitiis excavatis, aperturā rix incrassatā, arā columellari obsolete corrugatā, hileu-*

ratā; lutescente-albā, costis maculis griseo-nigricantibus densè tessellatis, arā columellari lutescente.

THE ASCENSION NERITE. Shell ovately turbinated, spire rather exerted, whorls concavely impressed at the upper part, spirally ribbed, ribs rounded, rather elevated, finely serrated throughout, interstices excavated, aperture scarcely thickened, columellar area obsolete wrinkled, two-toothed; yellowish-white, ribs thickly tessellated with grey-black spots, columellar area yellowish.

Hab. Island of Ascension.

Of rather light growth, speckled throughout on the ribs with eluded blue-black or grey spots, the interstices being of a yellowish or pinkish hue.



Species 15. (Mus. Cuming.)

NERITA LE GUILLOUXANA. *Ner. testâ suborato-globosâ, crassâ, spirâ subseriatâ, infractibus declivi-concavis, spirâliter costatis, costis confertis, parvis, medio et juxta suturam anterioribus, apertura incrassatâ et serratâ, areâ columellari incrassatâ et promiscuè corrugatâ, dentatâ; cinereo-albâ, griseo-olivacea maculatâ et variegatâ, apice luteo.*

LE GUILLOUX'S NERITE. Shell subovately globose, thick, spire a little exerted, whorls slantingly convex, spirally ribbed, ribs close-set, small, larger in the middle and next the suture, aperture thickened and serrated, columellar area thickened and promiscuously wrinkled, toothed; ash-white, mottled and variegated with grey olive, apex yellow.

RECLUZ, Rev. Zool. Soc. Cuvierienne, 1842, p. 178.

Hab. Philippine Islands.

A solid finely-ribbed species, richly mottled and variegated throughout with greyish-olive, the apex being yellow, and the columellar area much swollen and wrinkled

Species 16. (Mus. Cuming.)

NERITA ATRATA. *Ner. testâ swaiglobosâ, crassâ, spirâ rix erectâ, infractibus rotundatis, juxta spiram compressis, spirâliter elodostriatis, apertura ciliâ incrassatâ, leviter serratâ, rotundata-expansâ, areâ columellari convexâ, maculâ dentatâ; carbonario-atrâ, inter strias pallidâ.*

THE BLACK NERITE. Shell semiglobose, thick, spire scarcely exerted, whorls rounded, compressed next the spire, spirally elevately striated, aperture much thickened, slightly serrated, rotundately expanded, columellar area concave, minutely toothed, coal-black, pale between the striae.

CHEMNITZ, Conch. Cab. vol. v. pl. 190. p. 296, f. 1954, 1955.

Hab. Bay of Islands, New Zealand.

The surface of this species is not depressly grooved, as described by Lamarck, but merely finely linearly impressed, or, as Chemnitz characterizes it, "lineis obsoletis vix manifestis in fundo nigerrimo circumdatâ."

Species 17. (Mus. Cuming.)

NERITA MAURA. *Ner. testâ oblongo-oratâ, crassâ, solidâ, spiram rorsum compressâ, spirâ rix erectâ, infractibus spirâliter subulatis, sulcis linearibus, subinfractis, apertura incrassatâ et leviter serratâ, ampliter expansâ, areâ columellari obsolete verrucoso-corrugatâ, dentatâ; griseo-nigrescente, cinereo-albâ sparse interruptâ, columellâ pallidâ lutescente.*

THE MOOR NERITE. Shell oblong-ovate, thick, solid,

compressed towards the spire, spire scarcely exerted, whorls spirally grooved, grooves linear, rather close-set, aperture thickened and slightly serrated, largely expanded, columellar area obsoletely wart-wrinkled, toothed; grey-black, sparingly interrupted with ash-white, columella faintly yellowish.

RECLUZ, Rev. Zool. Soc. Cuvierienne, 1842, p. 179.

Hab. Australia.

An oblong solid shell, rather compressed near the spire, and boldly expanded at the aperture.

Species 18. (Mus. Cuming.)

NERITA CHRYSOSTOMA. *Ner. testâ oratâ, Turboiformi, crassâ, spirâ erectâ, infractibus convexis, spirâliter sulcatâ, sulcis linearibus, subregularibus, apertura incrassatâ et serratâ, subexpansâ, areâ columellari promiscuè corrugatâ, dentatâ; maculâ lutescente-albâ, nigrescente-olivacea flexuoso-corrugatâ, areâ columellari et apertura rotundatis.*

THE GOLDEN-MOUTHED NERITE. Shell ovate, Turbo-shaped, thick, spire exerted, whorls convex, spirally grooved, grooves linear, rather irregular, aperture thickened and serrated, rather expanded, columellar area promiscuously wrinkled, toothed; dull yellowish-white, flexuously variegated with blackish-olive, aperture and columellar area tinged with yell-gold.

RECLUZ, Rev. Zool. Soc. Cuvierienne, 1841, p. 104.

Hab. Island of Burias, Philippines (on the reefs at low water); Cuming.

This species when laid upon the aperture has, more than any other, the aspect of a *Turbo*, having externally the typical form, sculpture, and marking of that genus.

Species 19. (Mus. Cuming.)

NERITA SEMIRIGOSA. *Ner. testâ oblongo-globosâ, solidâ, spirâ plumbeo-concavâ, apice erecto, infractibus laxis confertis nitidè spirâliter fuculentis, apertura incrassatâ et serratâ, areâ columellari swaiglobosâ, dentatâ; olivaceo-cinereo, fuculentis maculis rorsicis et angis obliquè subulatis, apice luteo.*

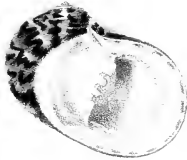
THE HALF-WRINKLED NERITE. Shell oblong-globose, solid, spire flatly concave, with the apex exerted, whorls neatly spirally corded with close-set ridges, aperture thickened and serrated, columellar area half-wrinkled, toothed; olive-ash, obliquely clouded with wavy pink and black flames, apex yellow.

RECLUZ, Rev. Zool. Soc. Cuvierienne, 1841, p. 102.

Eadem var. *Nerita Chevâillzii*, Recluz.

Hab. Island of Ternate, Moluccas.

Distinguished by the neat regularity of its corded ridges and oblique flame-clouded colouring.



NERITA.

PLATE V

Species 20. (Fig. 16, Mus. Cuming.)

NERITA ARABICA. *Ner. testâ compressâ globosâ, solidâ, spirâ vix exsertâ, aufractibus rotundatis, spirâliter lineari-sulcatis, sulcis superficialibus, aperturâ incrassatâ et tenuiserratâ, arâ columellari verrucoso-rugosâ et deutatâ; olivaceo-viridi, roseo tinctâ, punctis et maculis nigris multaque tessellatâ.*

THE ARABIC NERITE. Shell compressly globose, solid, spire scarcely exerted, whorls rounded, spirally linearly grooved, grooves rather superficial, aperture thickened and finely serrated, columellar area wart-wrinkled and toothed; olive-green, tinged with rose, tessellated throughout with black dots and spots.

Hab. Aden, Arabia.

A compressly globose species, superficially linearly grooved, of a rose-stained olive-green hue, tessellated in a characteristic manner with black dots and spots.

Species 21. (Fig. 17, Mus. Cuming.)

NERITA NERITINOIDES. *Ner. testâ ovatâ, subangustâ, solidâ, spirâ leviter obtusè exsertâ, aufractibus superâe concavo-declivibus, levigatis, aperturâ simplicî, arâ columellari concavo-planatâ, obsolete minute denticulatâ; intense nitent-âtrâ, arâ columellari pallidè aurantiâ.*

THE NERITINA-LIKE NERITE. Shell ovate, rather narrow, solid, spire slightly obtusely exerted, whorls concavely slanting at the upper part, smooth, aperture simple, columellar area concavely flattened, obsoletely minutely toothed; intense shining black, columellar area pale orange.

Hab. — ?

A smooth shining black species, partaking in a striking manner of the characters of *Neritina*.

Species 22. (Fig. 18, Mus. Cuming.)

NERITA MAXIMA. *Ner. testâ oblongâ, compressâ, solidâ, subcontertâ, spirâ vix exsertâ, aufractibus superâe concavo-planatis, deinde rotundatis, obsolete spirâliter lineari-sulcatis, levigatâ, nitente, aperturâ incrassatâ et tenuiserratâ, arâ columellari politâ, deutatâ; nigro et albo nudato-subulatâ, nigro præconcolorâ.*

THE VERY LARGE NERITE. Shell oblong, compressed, solid, somewhat twisted, spire scarcely exerted, whorls concavely flattened at the upper part, then rounded, obsoletely linearly spirally grooved, smooth,

shining, aperture thickened and finely serrated, columellar area polished, toothed; wave-clouded black and white, the black predominating.

CHEMNITZ, Couch. Cab. vol. v. p. 287. pl. 190. f. 1942. 1943.

Hab. — ?

This fine species, though faintly linearly grooved, is smooth and shining throughout, clouded profusely with waved black, so as almost to obscure the white.

Species 23. (Fig. 19, Mus. Cuming.)

NERITA GRISEA. *Ner. testâ oblongo-ovatâ, spirâ subsersâ, aufractibus superâe concavo-impressis, deinde rotundatis, dense spirâliter sulcatis, aperturâ parva incrassatâ, subserratâ, arâ columellari subobsoletè corrugato-liratâ, denticulatâ; albidâ, griseo maculatâ et obscure trifasciatâ, apice pallidè lutescente.*

THE GREY NERITE. Shell oblong-ovate, spire slightly exerted, whorls concavely impressed round the upper part, then rounded, closely spirally grooved, aperture but little thickened, faintly serrated, columellar area rather obsoletely wrinkle-ridged, toothed; whitish, spotted and obscurely three-banded with grey, apex pale yellow.

Hab. Island of Samar, Philippines; Cuming.

The surface of this species, having a more or less eroded appearance, is promiscuously spotted and three-banded with grey.

Species 24. (Fig. 20, Mus. Cuming.)

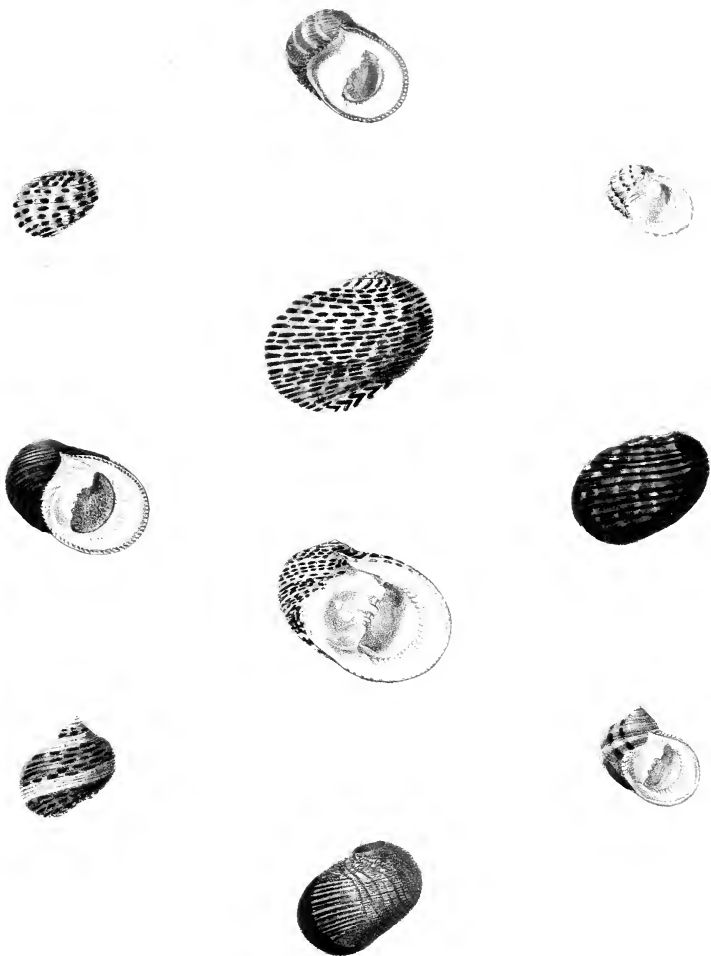
NERITA FICCA. *Ner. testâ ovatâ, solidiusculâ, Neritinae-formâ, spirâ subsersâ, aufractibus superâe concavo-impressis, deinde rotundatis, spirâliter lineari-sulcatis, sulcis leviter undulatis, aperturâ vix incrassatâ, nitidè liratâ, arâ columellari plano-concavâ, minute deutatâ; intense carneo-âtrâ.*

THE FITCHY NERITE. Shell ovate, rather solid, Neritina-shaped, spire slightly exerted, whorls concavely impressed round the upper part, then rounded, spirally linearly grooved, grooves slightly waved, aperture scarcely thickened, neatly ridged, columellar area flatly concave, minutely toothed; deep blue-black.

RECLZ, Rev. Zool. Soc. Cuvieriana, 1841, p. 151.

Hab. Sandwich Islands.

This shell, of a dark blue-black, engraved throughout with fine linear grooves, slightly waved, partakes very much of the characters of *Neritina*.



NERITA.

PLATE VI.

Species 25. (Fig. a, b, Mus. Cuming.)

NERITA ATRAMENTOSA. *Ner. testâ semiglobosâ, crassâ, solida, spirâ rîe exsertâ, anfractibus conarceis, subangustis, lacinis vel tenuè spirâliter striatis, striis subnodulatis, labro intus incrassato, deorsu nudo, columella plano-concava, margine intus denticulato; cerniteo-nigra, punctis albidis spirâliter longitudinalibus.*

THE INKY NERITE. Shell semiglobose, thick, solid, spire scarcely exerted, whorls convex, rather narrow, smooth or finely spirally striated, striae being a little waved, lip thickened inwardly, with a single tooth. Columella flatly concave, minutely toothed at the edge; blue-black, spirally freckled with white dots.

Hab. Swan River, Australia; Bacon.

A solid blue-black shell, spirally striated with slightly waved lines of whitish punctures.

Species 26. (Fig. a, b, Mus. Cuming.)

NERITA HINDSII. *Ner. testâ semiglobosâ, solida, spirâ rîe exsertâ, anfractibus subangustis, spirâliter costatis et sulcatis, labro intus denticulato, columella leviter granulata, margine intus denticulata; cinereo-grisea, costis nigro et albo promiscuè articulis, apice lutescente.*

HINDS' NERITE. Shell semiglobose, solid, spire scarcely exerted, whorls rather narrow, spirally ribbed and grooved, lip denticately ridged within, columella slightly granulated, minutely toothed at the edge; ash-grey, ribs promiscuously articulated with black and white, apex yellowish.

RECLUZ. *Pro. Zool. Soc.* 1843, p. 201.

Hab. Island of Panay, Philippines (under stones at low water); Cuming.

A rather spirally ribbed grey shell, promiscuously articulated with black and white, the black predominating, with a characteristic yellow apex.

Species 27. (Fig. a, b, Mus. Cuming.)

NERITA HISTRIO. *Ner. testâ ovato-semiglobosâ, crassâ, spirâ concavo-plana, rîe exsertâ, anfractibus angustis, obsolete planicostatis, apertura subeffusa, labro intus tenuè denticulato, columella densè callosa, paltili, obscure corrugata, margine dentata; griseo-albâ, nigro nudique articulis.*

THE HARLEQUIN NERITE. Shell ovately semiglobose, thick, spire concavely flattened, scarcely exerted, whorls narrow, obsoletely flatly ribbed, aperture rather effused, lip finely denticulated within, colu-

mella thickly callous, polished, obscurely wrinkled, toothed at the edge; greyish-white, articulated with black throughout.

LINNEUS. *Syst. Nat.* (12th edit.) p. 1254.

Hab. Australia.

A solid superficially ribbed shell, articulated regularly and throughout with black, with the whorls somewhat pinched towards the apex and effused towards the aperture.

Species 28. (Fig. a, b, Mus. Cuming.)

NERITA BALTEATA. *Ner. testâ ovato-subglobosâ, solida, spirâ declivi, rîe exsertâ, anfractibus subangustis, spirâliter latis, lîis tenuibus, foveolatis, labro intus incrassato, intus lîato, columella lacinata, superne corrugata, margine obsolete denticulata; cerniteo-nigra, lîis hic illic albo sparsis articulis.*

THE BELTED NERITE. Shell ovate-subglobose, solid, spire slanting, scarcely exerted, whorls rather narrow, spirally ridged, ridges fine, corded, lip inwardly thickened, minutely ridged, columella smooth, wrinkled at the upper part, obsoletely toothed at the edge; blue-black, ridges here and there sparingly articulated with white.

Hab. — ?

A dark blue-black shell, faintly spirally corded throughout, the cords being sparingly articulated here and there with white.

Species 29. (Fig. a, b, Mus. Cuming.)

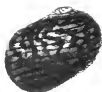
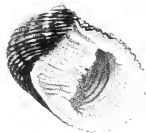
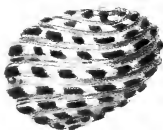
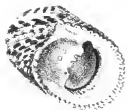
NERITA ESSINGTONI. *Ner. testâ oblongo-globosâ, spera subexsertâ, anfractibus superne concavo-lapidescentibus, deorsu conarceis, nudique spirâliter lîato-foveolatis, labro intus parva incrassato, dentibus lateraliibus dimidiatis, columella leviter corrugata, margine vix denticulata; cinereo-grisea, nigricante obscure foveolata et corrugata, punctis albidis aspersa.*

THE PORT ESSINGTON NERITE. Shell oblong-globose, spire rather exerted, whorls concavely impressed at the upper part, then convex, everywhere spirally ridge-corded, lip but little thickened inwardly, with two lateral teeth, columella faintly wrinkled, sharply toothed at the edge; ash-grey, obscurely banded and variegated with pale black, sprinkled with white dots.

RECLUZ. *Petit. Journ. Conch.* vol. i. pl. 11. f. 9.

Hab. Port Essington, Australia.

Of a grey ground-tint, sprinkled throughout with minute whitish dots, and obscurely banded with pale black.



NERITA.

PLATE VII.

Species 30. (Fig. a, b. Mus. Cuming.)

NERITA PREGOIGNYA. *Ner. testâ subglobosâ, spirâ rix exsertâ, anfractibus denis spiraliter costatis, costis circumlatis, labro intus subincrassato, lirato, columellâ subexsertâ, granulâ prepaucis, marginæ dentatâ; albidâ, fulco et nigro profuse maculatâ, apice lutescente.*

THE KNOWN NERITE. Shell subglobose, spire scarcely exerted, whorls closely spirally ribbed, ribs crenulated, lip a little thickened inwardly, ridged, columella rather excavated, with a few granules, toothed at the edge; whitish, profusely spotted with black and fulvous, apex yellowish.

C. B. ADAMS, MS. Mus. Cuming.

Hab. ———?

A very characteristic species, densely sculptured with spiral crenulated ribs, mottled throughout with black and fulvous-rust, the apex being of a yellowish tinge.

Species 31. (Fig. a, b. Mus. Cuming.)

NERITA SCALPTA. *Ner. testâ globosâ, solidiusculâ, spirâ subexsertâ, anfractibus levibus, liris impressis solidiusculis spiraliter incisiss, labro intus lirato, columellâ granulatâ, marginæ levæ dentatâ; nigri, liris impressis albidis, arâ columellari pulcherrimâ lutescente.*

THE SCRATCHED NERITE. Shell globose, rather solid, spire somewhat exerted, whorls smooth, spirally engraved with rather distant impressed lines, lip ridged within, columella granulated, finely toothed at the edge; black, impressed lines whitish, columellar area faintly yellowish.

Hab. ———?

A coal-black shell, well distinguished by its rather distant impressed whitish lines.

Species 32. (Fig. a, b. Mus. Cuming.)

NERITA CHLOROSTOMA. *Ner. testâ subtrigono-globosâ, crassiusculâ, spirâ convexo-impressâ, anfractibus fortiter spiraliter costatis, costis rotundatis, interstitiis excavatis, internum lirâ parvis interconcrete, labro intus fortiter lirato, columellâ convexâ, profuse granulâ, marginæ levæ hinc-dentatâ; fulvo-albidâ, costis nigro tessellatis, arâ columellari lutescente.*

THE YELLOW-MOUTH NERITE. Shell somewhat triangularly globose, rather thick, spire convexly impressed, whorls strongly spirally ribbed, ribs rounded,

interstices excavated, sometimes with a small ridge running between, lip strongly ridged within, columella concave, profusely granuled, finely two-toothed at the edge; fulvous-white, ribs tessellated with white, columellar area yellowish.

LAMARCK, ANIM. SANS VERT. vol. viii. p. 603.

Hab. Philippine Islands: Cuming.

Distinguished by the roundness of the ribs and hollowed interstices, and by the thickly-set granules of the columella.

Species 33. (Fig. a, b. Mus. Cuming.)

NERITA GRAYANA. *Ner. testâ ovato-globosâ, spirâ subexsertâ, anfractibus subangustis, spiraliter frœniculatis, liris subtiliter crenulatis, labro intus subcrassato, columellâ levæ cœnugatâ, marginæ denticulatâ; cinereo-grisâ, liris nigricaulibus hic illic albidipunctatis.*

GRAY'S NERITE. Shell ovately globose, spire a little exerted, whorls rather narrow, spirally corded with ridges, ridges finely crenulated, lip faintly crenulated within, columella finely wrinkled, finely toothed at the ridge; ash-grey, ridges black, here and there white-dotted.

RECLUZ, Revue Zool. Soc. Cuvierienne, 1843, p. 200.

Hab. Province of Ilocos, Island of Luzon, Philippines: Cuming.

A dark grey species, spirally sculptured with black cord-like ridges articulated here and there with white dots.

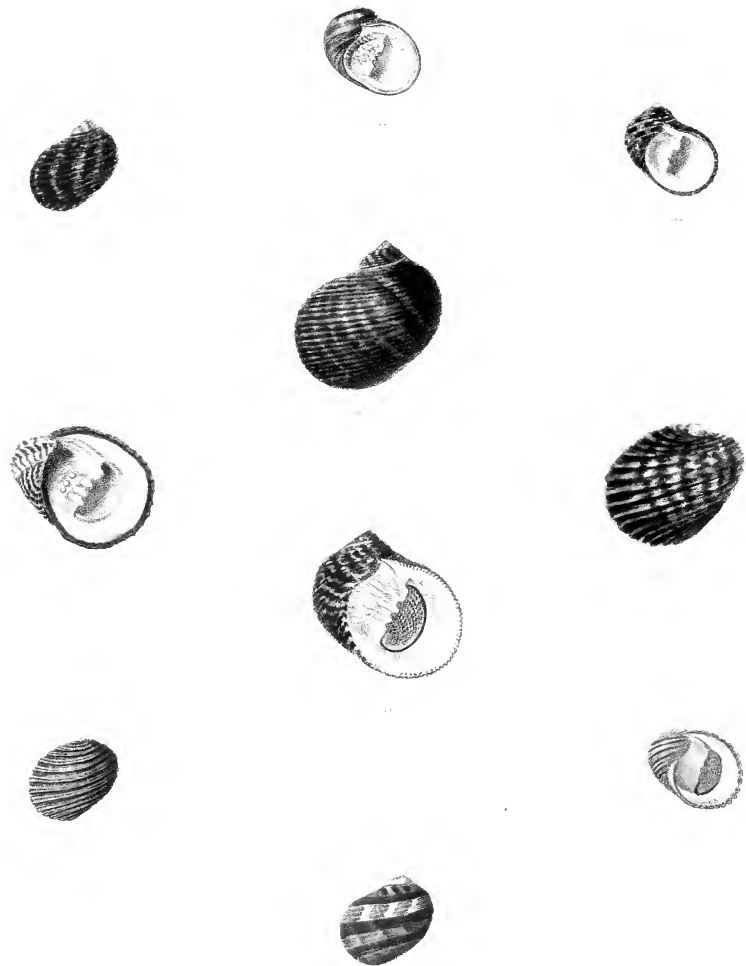
Species 34. (Fig. a, b. Mus. Cuming.)

NERITA HAUSTRUM. *Ner. testâ arato-globosâ, spirâ rix exsertâ, anfractibus leviter lineari-sarcatis, labro intus lirato, columellâ convexo-planatâ, marginæ obsolete denticulatâ; olivaceo-nigrâ, lutescente-albo hic illic interruptâ, columellâ pulcherrimâ roseo-liratâ.*

THE SCOOP NERITE. Shell ovately globose, spire scarcely exerted, whorls faintly linearly grooved, lip inwardly ridged, columella convexly flattened, obsoletely toothed at the edge; olive-black, here and there interrupted with yellowish-white, columella faintly tinged with rose.

Hab. Red Sea.

Distinguished by a rather contracted hollowed aperture, the outer surface of the shell being olive-black, opening out here and there on a yellowish-white ground.



NERITA.

PLATE VIII.

Species 35. (Fig. a, b, Mus. Cuming.)

NERITA SENEGALENSIS. *Ner. testâ semiglobosâ, solutiusculâ, spirâ sub-exsertâ, anfractibus spirâliter laticostatis, subcompresso-expansis, labro intus leviter hirsuto, columellâ plumbo-erectâ, granulatâ et bilobulatâ; alveolâ, interdum fasciatâ et variegatâ, arcu columellari medio aurantio tinetâ.*

THE SENEGAL NERITE. Shell semiglobose, rather solid, spire a little exserted, whorls spirally linearly grooved, rather compressly expanded, lip faintly ridged within, columella flatly excavated, granulated and two-toothed; olive, sometimes banded and variegated, columellar area orange-stained in the middle.

Gmelin, Syst. Nat. p. 3656.

Hab. Senegal.

This shell, distinguished among other characters by a granulated orange stain on the columellar area, is not *N. atrata*, as indicated by M. Deshayes, but *N. Senegalensis* of Gmelin, and *Le Dinar* of Adanson.

Species 36. (Fig. a, b, Mus. Cuming.)

NERITA LISTERI. *Ner. testâ semiglobosâ, spirâ sub-exsertâ, anfractibus spirâliter latis et costatis, apertura sublate expansâ, labro intus incrassato, lamiâ crenulatâ, columellâ plumbo-erectâ, bilobulatâ; alveolâ crenulo-nigrâ, costis punctis parvis albis hic illic antatis.*

LISTER'S NERITE. Shell semiglobose, spire rather exserted, whorls spirally grooved and ribbed, aperture rather broadly expanded, lip thickened inwardly, finely crenulated, columella flatly excavated, two-toothed; deep blue-black, ribs here and there marked with small white dots.

Recluz, Revue Zool. Soc. Cuvierienne, 1841, p. 277.

Hab. West Indies.

A shining blue-black ribbed shell, sprinkled in a very characteristic manner on the ribs with a few white dots.

Species 37. (Fig. a, b, Mus. Cuming.)

NERITA SAVIENNA. *Ner. testâ globosâ, crassissimâ, spirâ exsertâ, anfractibus convexis, latiusculis, spirâliter elevato-striatis et latis, labro intus calidè incrassato, dentato et crenulato, columellâ lamidiusculâ, granulo-crenulatâ, et dentatâ; carapulo-nigrâ, interdum folio obscure variegatâ, intus fuscantâ.*

THE SAVIEN NERITE. Shell globose, very thick, spire exserted, whorls convex, rather broad, spirally elevately striated and ridged, lip inwardly much thick-

ened, toothed and crenulated, columella somewhat swollen, granulately wrinkled and toothed; blue-black, sometimes faintly fulvous-variegated, interior yellowish.

Recluz, MS. Mus. Cuming.

Hab. New Ireland.

A swollen and very solid globular shell, grain-wrinkled across the columellar area.

Species 38. (Fig. a, b, Mus. Cuming.)

NERITA ATRO-PURPUREA. *Ner. testâ trigono-semiglobosâ, spirâ sinuatâ, plumbo-impressâ, anfractibus angustis, ad aperturam compressis, ad aperturam late expansis, spirâliter dense costatis et latis, labro incrassato et late effuso, columellâ planâ, medio granatâ, dentatâ, superiôrè sinuatâ; atro-purpureâ, porphyrescente-albâ undulatâ, aperturaâ fuscâ.*

THE DARK PURPLE NERITE. Shell angularly semiglobose, spire very small, flatly impressed, whorls narrow, compressed at the spire, broadly expanded at the aperture, spirally densely ribbed and ridged, lip thickened and broadly effused, columella flat, granulated in the middle, toothed, sinuated at the upper part; dark purple, waved with purple-white, aperture fulvous.

Recluz, Rev. Zool. Soc. Cuvierienne, 1841, p. 107.

Hab. Island of Negros, Philippines; Cuming.

A very characteristic pinched shell, stained with intense purple, broken up over the spire into pale wave streaks.

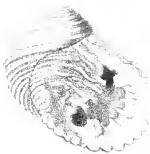
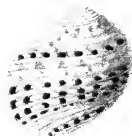
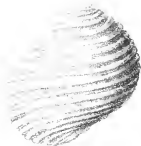
Species 39. (Fig. a, b, Mus. Cuming.)

NERITA BISETA. *Ner. testâ subglobosâ, subcompressâ, spirâ non exsertâ, anfractibus convexis, spirâliter costatis, costis regularibus, subdistinctis, saltem adnigre bisectis, labro intus effuso, sinuatè crenulato, columellâ planâ, sic dentulatâ; carapulo-nigrâ, arcu columellari ciliatâ, alveole.*

THE DIVIDED NERITE. Shell subglobose, rather expanded, spire not exserted, whorls convex, spirally ribbed, ribs regular, rather distant, divided throughout by a groove, lip effused within, minutely crenulated, columella flat, scarcely toothed; blue-black, columellar area yell.-yellow, shining.

Hab. West Africa; Fraser.

Curious spirally sculptured with a regular series of ribs, each of which is divided by a linear groove. The columellar area is of a shining yell.-yellow.



NERITA.

PLATE IX.

Species 40. (Fig. a, b, Mus. Cuming.)

NERITA GEMMIFLATA. *Ner. testâ ovato-semiglobosâ, tenuicula, spirâ subexsertâ, apice uncinatâ, anfractibus coarctis, spirâliter lineari-lineatis, liris crenulato-gemmatâ, columellâ plano-excaratâ, margine integro; griseo-albidâ, liris ceruleo-nigris et opaco-albo tenuè articulatis, apice latescente.*

THE GEMMED NERITE. Shell ovately semiglobose, rather thin, spire slightly exserted, sharp-pointed at the apex, whorls convex, spirally linearly ridged, ridges crenulately gemmed, columella flatly excavated, with the margin entire; greyish-white, ridges finely articulated throughout with blue-black and opaque-white, apex yellowish.

Hab. — ?

A shell of light substance with elegantly crenulated ridges, articulated with blue-black and opaque-white.

Species 41. (Fig. a, b, Mus. Cuming.)

NERITA FRAGUM. *Ner. testâ globosâ, spirâ rix exsertâ, anfractibus rotundatis, spirâliter tenuè confertim costatâ, labro intus incrassato, tenuè lirato, columellâ declivè-excaratâ, granulâ et corrugatâ; ceruleo-nigrâ, strigis perpaucis luteis ovatis notatâ, areâ columellari sanguineo-liviatâ.*

THE STRAWBERRY NERITE. Shell globose, spire scarcely exserted, whorls rounded, spirally finely closely ribbed, lip thickened inwardly, finely ridged, columella slantingly excavated, grained and wrinkled; blue-black, marked with a few yellowish eroded streaks, columellar area stained with a blood spot.

Hab. — ?

Chiefly distinguished by a characteristic blood spot on the granulated area of the columella.

Species 42. (Fig. a, b, c, d, Mus. Cuming.)

NERITA PLECATÀ. *Ner. testâ globosâ, solidâ, spirâ declivè-exsertâ, apice mucronatâ, anfractibus coarctis, spirâliter costato-plecatis, intersitiis carinatis, labro intus incrassato, unguiter dentato et lirato, columellâ tumidâ, verrucoso-corrugatâ, et dentatâ; albidâ, maculis nigris et olivaceis interdum fasciatâ.*

THE PLEATED NERITE. Shell globose, solid, spire slantingly exserted, pointed at the apex, whorls convex, spirally rib-pleated, interstices excavated, lip thickened inwardly, largely toothed and ridged, columella swollen, wart-wrinkled, and toothed; whitish, sometimes banded with black and olive spots.

LINNEUS, Syst. Nat. (10th edit.) p. 779.

Hab. West Indies.

A very characteristic species, of *Monodonta*-like form, remarkable for its strong development of ribs, teeth, and wart-wrinkles.

Species 43. (Fig. a, b, Mus. Cuming.)

NERITA TESSELLATA. *Ner. testâ ovato-subglobosâ, spirâ parvè exsertâ, anfractibus coarctis, fortiter spirâliter costatis, costis irregularibus, confertis, superâe angulatis, labro intus tenuè crenulato, columellâ plano-excaratâ, tenuè granulâtâ, margine arcuatâ; ceruleo-nigrâ et albo nalyque tessellatâ.*

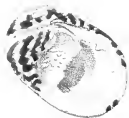
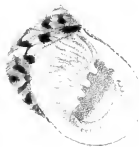
THE TESSELLATED NERITE. Shell ovately subglobose, spire slightly exserted, whorls convex, strongly spirally ribbed, ribs irregular, close-set, and at the upper part angled, lip faintly crenulated within, columella flatly excavated, finely granulated, arched at the edge, everywhere tessellated blue-black and white.

GMELIN, Syst. Nat. p. 3685.

Lr. Tullia, Adanson.

Hab. Senegal.

Encircled throughout with close-set strongly tessellated ribs, which towards the spire are broader and angulated.



NERITA.

PLATE X.

Species 44. (Fig. a, b, Mus. Cuming.)

NERITA SIGNATA. *Ner. testâ depresso-semiglobosâ, spirâ subexsertâ, sed impressâ, anfractibus superioribus convexis, deinde convexis, spirâlyter costatis et striatis, costis striisque nodulatis et tenè crenulatis, apertura subexpansâ, columellâ plano-excavata, verrucosa-corrugatâ, tenè denticulatâ; caeruleo-fulvis, costis striisque caeruleo-nigro et fulvo-roseo teniter articolatis, areâ columellari sanguineo-fulvâ.*

THE MARKED NERITE. Shell depressly semiglobose, spire a little exerted but impressed, whorls concave round the upper part, then convex, spirally ribbed and striated, ribs and striae noduled and finely crenulated, aperture rather expanded, columella flatly excavated, wart-wrinkled, finely toothed; bluish-white, ribs and striae finely articulated with blue-black and fulvous-rose, columellar area blood-stained.

MACLEAY. Lamarek. Anna. sans vert. vol. vii. p. 610.

Hab. New Holland; Macleay. Island of Masbate, Philippines; Cuming.

A very beautifully sculptured and prettily painted species, with a deep blood-stain on the columellar area.

Fig. 15. (Mus. Cuming.)

This shell, from the Mauritius, proves to be a variety of *N. bisecta* from West Africa, described at Plate VIII. Sp. 39, without the bright yellow columella which distinguishes that variety.

Species 46. (Fig. a, b, Mus. Cuming.)

NERITA ORYZARUM. *Ner. testâ globosâ, solidiusculâ, spirâ obtusâ, parva exsertâ, anfractibus convexis, interduâ leviter latis, interduâ retusè costatis, labro intus incrassato, et ltrato, columellâ corrugatâ et granulata, tenè denticulatâ; nigricante-olivaceâ, unguis albis subulterioribus peculiariter variegatâ et tessellatâ.*

THE RICE-MARKED NERITE. Shell globose, rather solid, spire obtuse, but little exerted, whorls convex, sometimes faintly ridged, and sometimes bluntly ribbed, lip thickened inwardly and ridged, columella wrinkled and granuled, faintly toothed; blackish-olive, peculiarly mottled and tessellated with distant white spots.

RECLUZ, Revue Zool. Soc. Curieienne, 1841, p. 178.

Hab. Bombay and Malacca.

Of this characteristic white-mottled species, Mr. Cuming possesses a ribbed variety from Malacca, and a variety in which the ribs are almost obsolete from Bombay.

Species 47. (Fig. a, b, Mus. Cuming.)

NERITA OLEAGINA. *Ner. testâ acuto-globosâ, spirâ exsertâ, unguiculâ, anfractibus convexis, spirâlyter elevato-striatis, labro intus incrassato, via crenulato, deinde unica laterali, columellâ converisculâ, prominètiè verrucosa-corrugatâ, fortiter dentatâ; nigricante-olivaceâ, interduâ nigro-fuscatâ, unguis albidis nudis nigro-nubris obliquè variegatâ.*

THE OLIVE NERITE. Shell ovately globose, spire exerted, pointed, whorls convex, spirally elevated striated, lip thickened inwardly, scarcely crenulated, with a single lateral tooth, columella rather convex, prominently wart-wrinkled, strongly toothed; blackish-olive, sometimes banded with black, obliquely mottled with black-shaded waved white spots.

Hab. —?

Slightly resembling the preceding species in its peculiar style of painting, but distinct in form and sculpture.

Species 48. (Fig. a, b, Mus. Cuming.)

NERITA FILOSA. *Ner. testâ globoso-turbinatâ, spirâ exsertâ, unguiculâ, anfractibus superioribus declivibus, deinde convexis, liris minute bisectis spirâlyter filosis, labro intus incrassato, minute crenulato, deinde laterali unguis utriusque arcuato, columellâ levisgatâ, denticulatâ; ferrugineo-sordidâ, liris exâitè corallo-nigricantibus.*

THE THREADED NERITE. Shell globose turbinate, spire exerted, sharp-pointed, whorls slanting at the upper part, then convex, spirally threaded with minutely divided ridges, lip inwardly thickened, minutely crenulated, with a sharp lateral tooth on each side, columella smooth, finely toothed; rusty fawn-colour, ridges delicately blue-black.

Hab. —?

An extremely delicate and neatly sculptured species, being encircled with dark thread-like ribs, which are nevertheless minutely bisected by a groove, upon a rust-fawn ground.



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NERITA.

PLATE XI.

Species 49. (Fig. *a, b*, Mus. Cuming.)

NERITA AURANTIA. *Ner. testâ semi-globosâ, solutiusculâ, spirâ parvâ, exsertâ, macrocostâ, anfractibus convexis, spirâliter confertim lineatis, interstitiis regulariter concavis, labro intus multo incrassato, effuso, minute crenulato, dentibus duobus lateralibus, columellâ subovata, subobsoletè crenulatâ, fortiler dentatâ; rufo-aurantiâ, liris hic illic nigricante nudatis.*

THE ORANGE NERITE. Shell semiglobose, rather solid, spire small, exserted, sharp-pointed, whorls convex, spirally closely ridged, interstices regularly concave, lip much thickened interiorly, effused, minutely crenulated with two lateral teeth, columella slightly convex, rather obsoletely wrinkled, strongly toothed; reddish-orange, ridges here and there waved with black.

RECLUZ, *Petit, Journ. Conch.* vol. i. pl. II. f. 11.

Hab. Island of Bohol, Philippines; Cuming.

Distinguished by its small pointed spire, and very regular series of close-set spiral ridges, faintly waved with black upon a rich reddish-orange ground.

Species 50. (Fig. *a, b*, Mus. Cuming.)

NERITA FULIGINATA. *Ner. testâ ovato-semiglobosâ, spirâ subexsertâ, anfractibus convexis, spirâliter dense linearis-sulcatis, columellâ plano-convexâ, levè dentulatâ; corvâ, liris rufis undulatis confertis caricatâ, intus nigro nudique plus minus impunctâ.*

THE SOOTY NERITE. Shell ovately semiglobose, spire rather exserted, whorls convex, spirally densely linearly grooved, columella flatly excavated, finely toothed; flesh-tinged, variegated with waved red lines, close-set, more or less smeared over with inky-black.

Hab. —?

A peculiarly red-waved shell, almost entirely besmeared with inky-black.

Species 51. (Fig. *a, b*, Mus. Cuming.)

NERITA FULGURANS. *Ner. testâ globosâ, crassâ, spirâ plano-depressâ, anfractibus convexis, dense spirâliter lineatis, liris obsolete crenulatis, interstitiis linearibus, labro intus fortiler crenato, dentibus duobus lateralibus utrinque armato, columellâ granulatâ, levè dentulatâ; caruleo-albâ, caruleo-nigro profusè nudato-caricgatâ.*

THE LIGHTNING-MARKED NERITE. Shell globose, thick, spire flatly depressed, whorls convex, densely spirally ridged, ridges obsoletely crenulated, interstices

linear, lip strongly crenated within, with two lateral teeth on each side, columella granulated, faintly toothed; bluish-white, profusely wave-variegated with blue-black.

GMELIN, *Syst. Nat.*

Hab. Honduras (on the rocks); Dyson.

Very characteristic both in sculpture and painting, the whorls being marked throughout with regular ridges, so close-set, that the interstices between them are merely linear; the painting consists of a promiscuous splashing of deep indigo upon a blue-white ground.

Species 52. (Fig. *a, b*, Mus. Cuming.)

NERITA LONGII. *Ner. testâ globosâ, solidâ, spirâ subexsertâ, anfractibus convexo-declivibus, dense convexis, spirâliter linearis-sulcatis, interstitiis convexo-planatis, labro intus crenulato, deute calido laterali, columellâ convexo-crenulatâ, dentatâ; lutescento-albâ, olivaceo-cinrâ liactâ, purpureo-nigro nebulatâ et articulatâ.*

LONG'S NERITE. Shell globose, solid, spire slightly exserted, whorls concavely slanting at the upper part, then convex, spirally linearly grooved throughout, interstices convexly flattened, lip crenulated within, with a strong lateral tooth, columella wart-wrinkled, toothed; yellowish-white, stained with olive-green, clouded and articulated with purple-black.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1842, p. 178.

Hab. Bombay.

A solid shell, of pale greenish hue, much darkened with clouded purple-black articulated blotches.

Species 53. (Fig. *a, b*, Mus. Cuming.)

NERITA ARGUS. *Ner. testâ semi-globosâ, depressiusculâ, spirâ planâ, forè obsoletâ, anfractibus angustis, deinde lateribus, raris, superâ et inferâ linearis-sulcatis, medio lorigatis, columellâ plano-convexâ, levè granulata, minute dentulatâ; intus caruleo-nigro, punctis albidis obsolete lenticulosâ.*

THE ARGUS NERITE. Shell semiglobose, rather depressed, spire flat, almost obsolete, whorls narrow, then broader and expanded, above and below linearly grooved, smooth in the middle, columella flatly concave, finely granulated, minutely toothed; dark blue-black, obsoletely speckled with white dots.

RECLUZ, *Revue Zool. Soc. Cuvierienne* 1841, p. 150.

Hab. Island of Mashate, Philippines; Cuming. Fernando Po, West Africa; Fraser.

The speckling of white dots, which has suggested the name of this species, is somewhat indistinctly portrayed.



NERITA.

PLATE XII.

Species 54. (Fig. *a, b*, Mus. Cuming.)

NERITA ERUBESCENS. *Ner. testâ globoso-turbinatâ, crassa, spirâ pronuntiatâ, anfractibus convexis, spirâliter livatis et striatis, labro deute acuto laterali, columellâ leviter corrugatâ et dentatâ; pallidâ rufâ, aut caracinali, punctis rufoscutellibus aspersâ et fasciatâ.*

THE BLUSHING NERITE. Shell globosely turbinated, thick, spire prominent, whorls convex, spirally ridged and striated, lip with a sharp lateral tooth, columella faintly wrinkled and toothed; pale red, or flesh-white, sprinkled and banded with reddish dots

Hab. ——— ♀

A solid shell, stained with pale bright red or sprinkled with pinkish dots, having somewhat the appearance of a *Lottorina*.

Fig. 55. (Mus. Cuming.)

The shell here figured proves to be an immature specimen of *N. bisecta*, described at Plate VIII. Sp. 39, but it is important to note that the ribs are more prominently developed and more distinctly bisected.

Species 56. (Fig. *a, b, c, d*, Mus. Cuming.)

NERITA VERSICOLOR. *Ner. testâ ovato-globosâ, crassâ, spirâ subersortâ, anfractibus superâ leviter-depressis, dimidâ convexis, spirâliter costatis, interstitiis interdum superficialibus, interdum excavatis, columellâ turribâ et corrugatâ, fortiter dentatâ; albidi, maculis nigris et raris plus minus fasciatâ et tessellatâ, interdum omnino interruptâ griseo-nigrâ.*

THE VARI-COLOURED NERITE. Shell ovately globose,

thick, spire rather exerted, whorls slantingly depressed round the upper part, then convex, spirally ribbed, interstices sometimes superficial, sometimes excavated, columella swollen and wrinkled, strongly toothed; whitish, more or less banded and tessellated with black and pink spots, sometimes altogether interrupted grey-black

LAMARCK. Anim. sans vert. vol. vii. p. 606.

Hab. West Indies.

This species varies in being more banded with pink spots than in the specimens here represented.

Species 57. (Fig. *a, b*, Mus. Cuming.)

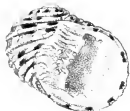
NERITA BERNHARDI. *Ner. testâ scutiglobosâ, subdepressa spirâ obtusè planatâ, anfractibus convexis, subcompressis, versus aperturam expansis, spirâliter deussè livatis, livis obscure crenulatis, labro effuso, fortiter crenato et dentato, columellâ plano-crenatâ, granulatâ, vie dentulatâ; nigri, evanescente aut punctis lutescentibus variegatâ.*

BERNHARD'S NERITE. Shell scumiglobose, rather depressed, spire obtusely flattened, whorls convex, sub-compressed, expanded towards the aperture, spirally closely ridged, ridges obscurely crenulated, lip effused, strongly crenated and toothed, columella flatly excavated, granulated, scarcely toothed; black, variegated with pale green, or yellowish dots.

RECLUS, Petit, Journ. Couch. vol. i. p. 285.

Hab. Peru.

A small depressly globose shell, with expanded aperture and granulated columella, strongly toothed within the lip.



NERITA.

PLATE XIII.

Species 58. (Fig. a, b, Mus. Cuming.)

NERITA ORBIGNYANA. *Ner. testâ oblongo-ovata, spirâ obtusè planatâ, anfractibus subangustis, concentricè striatis, labro tenuicula, columellâ plana-æcaratâ, medio obsolete corrugatâ; sepiopelluculo-âlbâ, punctis caruleo-nigris, in strigis acutè unctis, apice-âlbâ variegatis, dispositis, promiscuè unctis.*

ORBIGNY'S NERITE. Shell oblong-ovate, spire obtusely flattened, whorls rather narrow, concentrically striated, lip rather thin, columella flatly excavated, obsoletely wrinkled in the middle; semitransparent-white, promiscuously marked with blue-black dots, disposed in zigzag waves, edged with opaque-white.

REULIZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 108.
Hab. —?

A shell of rather light and narrow structure, marked with characteristic zigzag waves of opaque-white, promiscuously charged with blue-black dots.

Species 59. (Fig. a, b, Mus. Cuming.)

NERITA NOV-I-GUINEE. *Ner. testâ semi-globosâ, depressâ, spirâ parvâ exsertâ, mucronatâ, anfractibus convexis, versus aperturam expansis, spirâliter confluentibus flosco-liratis, columellâ latè corrugatâ, denticulatâ; caruleo-nigrâ, ligarum interstitiis pallidioribus.*

THE NEW GUINEA NERITE. Shell semi-globose, depressed, spire but little exerted, pointed, whorls convex, expanded towards the aperture, spirally closely thread-ribbed, columella broadly wrinkled, toothed; blue-black, interstices between the ridges lighter.

LESSON, *Petit, Journ. Conch.* vol. i. p. 283.
Hab. New Guinea.

Of a dark unspotted blue-black colour, encircled with regular thread-like ridges.

Species 60. (Fig. a, b, c, d, Mus. Cuming.)

NERITA STELLA. *Ner. testâ subglobosâ, crassâ, spirâ parvâ exsertâ, obtusâ, anfractibus convexis, spirâliter costatis, costis irregularibus, interlinea obtusè angulatis, labro intus fortiter crenulo, columellâ granulatâ, acutè obsolete denticulatâ; albâ, rugâ et cinescente variegatâ, olivaceo-nigro calutâ et reticulatâ.*

THE STAR NERITE. Shell sub-globose, thick, spire but little exerted, obtuse, whorls convex, spirally ribbed, ribs irregular, sometimes obtusely angled, lip strongly crenated within, columella granulated, minutely obsoletely toothed; whitish, variegated with green and red, rayed and reticulated with olive-black.

CHEMNITZ, *Conch. Calb.* vol. xi. pl. 197. f. 1907, 1908.
Hab. Philippines.

A beautifully painted species, named after the star-like pattern which is sometimes formed on the spire by the dark radiating blotches.

Species 61. (Fig. a, b, Mus. Cuming.)

NERITA ALBIPUNCTATA. *Ner. testâ ovato-semiglobosâ, spirâ subexsertâ, obtusâ, anfractibus angustis, superuè convexo-depressis, spirâliter liratis, liris rudè crenulatis, interstitiis punctatis, columellâ plana-æcaratâ, sparsim granulatâ, obsolete minutissimè denticulatâ; caruleo-nigrâ, ligarum interstitiis albipunctatis.*

THE WHITE-PUNCTURED NERITE. Shell ovately semi-globose, spire rather exerted, obtuse, whorls narrow, concavely depressed at the upper part, spirally ridged, ridges rudely crenulated, interstices punctured, columella flatly excavated, sparingly granulated, obsoletely very minutely toothed; blue-black, interstices between the ridges white dotted.

Hab. —?

A dark blue-black spirally ridged shell, marked between the ridges with white-crocheted punctures.



47a



47b



47c



47d



47e



47f



47g



47h



47i



47k

NERITA.

PLATE XIV.

Species 62. (Fig. *a* to *k*, Mus. Cuming.)

NERITA RUMPHII. *Ner. testâ oblongo-globosâ, crassiusculâ, politâ, spirâ obtusè impressâ, anfractibus subæqualis, concentricè striatis, labro interno inæcrassato, vix crenulato, columellâ concava-planâ, interdentia paucis granulis, minutè denticulatâ, dentibus interdum obsolete; colore variâ.*

RUMPHIUS' NERITE. Shell oblong-globose, rather thick, polished, spire obtusely impressed, whorls rather narrow, convex, concentrically striated, lip thickened inwardly, scarcely crenulated, columella concavely flattened, sometimes with a few granules, minutely toothed, teeth sometimes obsolete; colour various.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 147.

Nerita polita pars, Chemnitz.

Hab. Philippine Islands; Cuming.

So extremely variable is this species in its painting, that

it has been thought necessary to devote a plate to a selection of its most characteristic states. Fig. *a*, a uniform bright orange; fig. *b*, ivory-white, with a broad band of interrupted dark ash-black blotches; fig. *c*, encircled with three rose bands upon a greyish-white ground, sprinkled with minute black and white dots; fig. *d*, sprinkled with black white-splashed dots upon an olive-grey ground; fig. *e*, encircled with four bright orange bands, sprinkled with black dots upon a bright green ground; fig. *f*, clouded with crimson bands and blotches upon a dark olive-grey ground, freckled in the interstices with black dots, here and there splashed with white; fig. *g*, grey and white, freckled with broad interrupted bands of light orange-fawn blotches; fig. *h*, flesh-pink, encircled with yellowish-white stripes; fig. *i*, dark grey, freckled with black and white-splashed dots, encircled round the middle with a light band; fig. *k*, regularly encircled with broad equal clearly defined bands of black and white.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

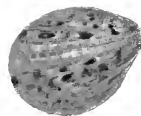


Fig. 5



Fig. 6



Fig. 7



Fig. 8

NERITA.

PLATE XV.

Species 63. (Fig. *e* to *f*, Mus. Cuming.)

NERITA SQUAMULATA. *Nat. testâ subobovata, latè depressâ, spirâ obtusè planâ, anfractibus coarctatis, recessus aperturæ latè expansis, densè spirâliter liratis, liris irregularibus, plus minus squamulatis, labro ampliter effuso, intus crenato, columellâ crenatâ, medio bano granulata, sinuâ denticulatâ; colore variâ.*

THE SCALY NERITE. Shell suborbicular, broadly depressed, spire obtusely flattened, whorls convex, broadly expanded towards the aperture, densely spirally ridged, ridges irregular, more or less scaly, lip largely effused, crenated within, columella concave, finely granulated in the middle, minutely toothed; colour various.

LE GRILLOU, *Revue Zool. Soc. Chiriacenne.*

Hab. Philippine Islands and Singapore; Cuming.

An interesting species, well characterized by its broadly oblong aperture and pinched spire, and scaly sculpture. In colour it is almost as variable as the species of the preceding plate. Fig. *a*, a bright uniform crimson-orange; fig. *b, c*, an orange-yellow, broadly splashed and wave-banded with black; fig. *d, e*, opake-white, very delicately obliquely wave-sprinkled with minute grey dots; fig. *f*, pink, with the ridges conspicuously picked out in white, mottled with three bands of open black network.

Species 64. (Fig. *a* to *d*, Mus. Cuming.)

NERITA ALBICILLA. *Ner. testâ subtriangulo-ovata, depressissimâ, spirâ obtusè planâ, fræc obsolete, anfractibus angustis, recessus aperturæ gradatim expansis, spirâliter costatis, costis confertis, plus minus obtusis, interdentia obsolete, labro latè effuso, intus multo incrassato, cirâ crenato, arcâ columellari amplâ, nudique granulata, sinuâ sinuâ denticulatâ; colore variâ.*

THE OX-PALATE NERITE. Shell somewhat triangularly ovate, very depressed, spire obtusely flattened, almost obsolete, whorls narrow, gradually expanded towards the aperture, spirally ribbed, ribs close-set, more or less obtuse, and sometimes obsolete, lip broadly effused, much thickened inwardly, scarcely crenulated, columellar area large, granulated throughout, very minutely toothed; colour various.

LINNEUS, *Syst. Nat.* (10th edit.) p. 778.

Hab. Philippine Islands and Mauritius; Cuming.

This species is well distinguished from all others by its very depressed oblong-ovate form, and narrow pinched spire, the columellar area being unusually large and profusely granulated. In colour it is extremely variable: fig. *a, d*, a dark purple-black, freckled and clouded with greyish-white; fig. *b, c*, a brilliant crimson-orange, banded with a light sprinkling of irregular grey-black dots.



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NERITA.

PLATE XVI.

Species 65. (Fig. a, b, Mus. Cuming.)

NERITA VEXILLUM. *Ner. testâ oratâ, spirâ subersertâ, angustibus rotundis, juxta suturem impressis, spirâlibus regulariter latis, columellâ convexo-planâ, acutè denticulatâ; fasciis latis nigris et latis cinquantâ, nigro luteo-punctatis.*

THE FLAG NERITE. Shell ovate, spire rather exerted, whorls rounded, impressed next the suture, spirally regularly ridged, columella convexly flattened, sharply toothed; encircled with broad black and yellow bands, the black yellow-dotted.

Hab. —?

Encircled in a very characteristic manner with broad black and yellow bands, the black bands being interrupted with yellow dots.

Species 66. (Fig. a, b, Mus. Cuming.)

NERITA NIVOSA. *Ner. testâ oratâ, spirâ subersertâ, angustibus juxta suturem dextrorsis, deinde convexis, spirâlibus impressis et linearis-sulcatis, sulcis calidi irregularibus, labro latis subincrassato, deute nudo laterali, columellâ dextrâ, obsolete crenatâ, denticulatâ, intus excavato-circulâ, albo sparsim aculata.*

THE SNOWY NERITE. Shell ovate, spire rather exerted, whorls slanting next the spire, then convex, spirally ridged and linearly grooved, grooves very irregular, lip slightly thickened inwardly, with a single lateral tooth, columella slanting, obsolete wrinkled, toothed; dark blue-green, sparingly clouded with white.

Hab. —?

A very dark green shell, sparingly and somewhat obscurely clouded with white spots or small blotches.

Species 67. (Fig. a, b, Mus. Cuming.)

NERITA MARMORATA. *Ner. testâ orbiculari-depressâ, crassiusculâ, spirâ obtusè impressâ, angustibus convexis, recessu aperturæ latis, irregulariter spirâlibus et linearis-sulcatis, aperturâ expansâ, labro effuso, columellâ dextrâ, laterali nudo denticulatâ; excavato-albâ, excavato-nigro sparsim marmorata.*

THE MARBLED NERITE. Shell orbicularly depressed, rather thick, spire obtusely impressed, whorls convex, broad towards the aperture, irregularly spirally

ridged, and linearly grooved, aperture expanded, lip effused, columella slanting, sometimes minutely toothed; bluish-white, sparingly mottled with blue-black.

Hab. —?

A very characteristic broadly expanded species, with the spire impressly flattened, mottled here and there in obscure bands with blue-black upon a bluish-white ground.

Species 68. (Fig. a, b, Mus. Cuming.)

NERITA ACHATINA. *Ner. testâ oratâ, spirâ subersertâ, angustibus angustis, convexis, recessu aperturæ laterâlibus, impressè linearis-sulcatis, sulcis calidi irregularibus, labro latis latis, columellâ dextrâ, obsolete granulatâ, denticulatâ; carbonaria-nigra, nitente, sulcis linearibus pallidis.*

THE AGATE NERITE. Shell ovate, spire slightly exerted, whorls narrow, convex, broader towards the aperture, impressly linearly grooved, grooves very irregular, lip ridged within, columella slanting, obsolete granulated, toothed; coal-black, shining, with the linear grooves pale.

Hab. —?

A characteristic shining coal-black shell, encircled at very irregular intervals with pale impressed linear grooves.

Species 69. (Fig. a, b, Mus. Cuming.)

NERITA NERITOPSEIDES. *Ner. testâ orbiculari-lobatâ, spirâ exertâ, murexulatâ, angustibus rotundis, conspicuè deorsu spirâlibus latis, labro latis incrassato, nudo excavato, deute nudo laterali, columellâ dextrâ, denticulatâ, obliquè crenatâ, fortiter denticulatâ, pallide stramineâ.*

THE NERITOPSIS-LIKE NERITE. Shell ovately turbinate, spire exerted, pointed, whorls rounded, conspicuously closely spirally ridged, lip thickened within, minutely crenulated, with a minute lateral tooth, columella rather swollen, obliquely wrinkled, strongly toothed; pale straw-colour.

Hab. —?

A solid turbinate species, very closely spirally ridged, of a pale-straw-colour, reminding one somewhat of a *Neritopsis*.



NERITA.

PLATE XVII

Species 70. (Mus. Cuming.)

NERITA ELECTRINA. *Ner. testâ subglobulosa, depresso, spirâ subangustâ, aperturâ, utrinque, usque ad marginem, densè spiruliter laticis, interstitiis obsolete punctatis, columella tenuè denticulata; lobis callosis, setis, immixtulis.*

THE AMBER NERITE. Shell suborbicular, depressed, spire slightly exerted, pointed, whorls convex, densely spirally ridged, interstices obsolete punctured, columella finely toothed; yellowish-orange, unspotted.

Hab. Isle of Panay, Philippines; Cuming.

A delicate clear orange-yellow shell, closely spirally ridged throughout, the interstices between the ridges being absolutely punctured.

Species 71. (Fig. a, b, Mus. Cuming.)

NERITA DUMBYLLI. *Ner. testâ suborbiculatâ, spirâ obtusè planatâ, angustius angustis, deinde latiusculis, densè spiruliter laticis, lina hamoribus, colore irregularibus, aperturâ effusa, columellâ concavè excavatâ, medio granulatâ, edentulatâ; varietate al-pinnulâ.*

DUMBYLL'S NERITE. Shell somewhat orbicular, spire obtusely flattened, whorls narrow, then broader, densely spirally ridged, ridges linear, very irregular, aperture effused, columella concavely excavated, granulated in the middle, edentulate; bluish lead-colour.

RECLUS, Revue Zool. Soc. Cuvierienne, 1841, p. 149.

Hab. Bombay.

A dull slate-coloured species, with a rather broad effused aperture, having the columellar area gently excavated and granulated in the middle.

Species 72. (Fig. a, b, Mus. Cuming.)

NERITA COMMA-MARKATA. *Ner. testâ ovatâ, spirâ obtusè exertâ, angustibus subangustis, superiù declivibus, spiruliter laticis et subulcis, columellâ bipinnatâ, lobis denticulatâ; varietate nigra, punctis albis commatibus aspersâ.*

THE COMMA-MARKED NERITE. Shell ovate, spire obtusely exerted, whorls rather narrow, slanting at the upper part, spirally closely ridged and grooved, columella smooth, slightly toothed; blue-black, sprinkled with white comma-shaped marks.

Hab. ———

An extremely characteristic species, of dark blue-black colour, sprinkled throughout with opaque-white comma-shaped dots.

Species 73. (Fig. a, b, Mus. Cuming.)

NERITA SPENGLERIANA. *Ner. testâ orbiculatâ-ovata, convexiusculâ, spirâ subangustâ, aperturâ, usque ad marginem, spiruliter obsolete laticis, decussatâ striatis, aperturâ effusa, columellâ callous, edentulatâ; lobis albâ-pub. nigra intercommissurâ.*

SPENGLER'S NERITE. Shell orbicularly ovate, rather thick, spire slightly exerted, pointed, whorls convex, spirally absolutely ridged, decussately striated, aperture effused, columella callous, edentulate; yellowish-white, interruptedly banded with black.

RECLUS, Pro. Zool. Soc. 1843, p. 201.

Hab. Isle of Panay, Philippines (under stones at low water), Cuming.

Nearly smooth, with a callous effused edentulate aperture, stained in a very interrupted manner with a sinuery black band.

Species 74. (Fig. a, b, Mus. Cuming.)

NERITA GEORGINA. *Ner. testâ ovatâ, depresso-convulâ, spirâ planatâ-angustâ, parvâ, aperturâ, usque ad marginem, subangustibus, spiruliter costatis, costis tenuibus, subulcatis, interstitiis striis concentricis densè cancellatis, areâ columellari angustâ, bipinnatâ, edentulatâ; sordidi rufescentes, callos, nigra tessellatâ.*

THE GEORGE NERITE. Shell ovate, rather depressed, spire flatly impressed, small, pointed, whorls rather narrow, spirally ribbed, ribs thin, rather distant, interstices densely cancellated with concentric striae, columellar area large, smooth, edentulate; dull pinkish-yellow, tessellated with black.

RECLUS, Revue Zool. Soc. Cuvierienne, 1841, p. 180.

Hab. King George's Island.

A light rather depressed shell, sculptured with thin rather distant ribs, having the interstices densely latticed with crossed striae.

Species 75. (Fig. *a, b*, Mus. Cuning.)

NERITA KINGESS. *Ner. testâ globosâ, parvâ, solidâ, spirâ
leviter exsertâ, anfractibus rotundatis, spirâliter regu-
lariter costatis, labro et columellâ fortissimè denta-
tis, areâ columellari tumidi et corrugatâ; intus
plumbâ.*

THE GRINNING NERITE. Shell globose, small, solid, spire

slightly exserted, whorls rounded, spirally regularly
ribbed, lip and columella very strongly toothed, co-
lumellar area swollen and wrinkled; dark lead-
colour.

Hab. — ?

A small globose pea-like shell, distinguished by the
strongly developed teeth of the lip and columella



77a



77



77b



77c



77d



77e



77f



77g



77h



77i

NERITA.

PLATE XVIII.

Species 70. (Mus. Cuming.)

NERITA BULLATA. *Ner. testâ ovata, spirâ obtusa, rive crenata, infractibus subangustis, labiis col. spiralis et apertis, columella excavato-planâ, subangustâ, l. ovissimè obsolete denticulata; carinatione nigra.*

THE RIBBLE NERITE. Shell ovate, spire obtuse, scarcely exerted, whorls rather narrow, smooth or spirally striated, columella excavately flattened, rather narrow, finely obsolete toothed, coal-black.

Hab. — ?

A small shining black species, with the whorls rather narrow, and the spire slightly slantingly exerted.

Species 77. (Fig. a, b, Mus. Cuming.)

NERITA GENUANA. *Ner. testâ orbiculari-ovata, depressiuscula, spirâ impresso-planâ, infractibus subangustis, rivas aperturam latioribus, spiralis tenuicostis, labio latius foriferis crenatis, columella declivi-crenata, profuse granulata, orbiculata; intus nigra, zona distincta latius labris aut rivas cingulata.*

THE GARNERED NERITE. Shell orbicularly ovate, rather depressed, spire impressly flattened, whorls rather narrow, broader towards the aperture, spirally finely ridged, lip strongly crenated within, columella slantingly excavated, profusely granulated, orbiculate; intense black, encircled with broad reddish or yellow bands.

Hab. — ?

A jet-black species, encircled below and around the suture with a very characteristic broad yellow or rose band.

Species 78. (Fig. a, b, Mus. Cuming.)

NERITA ANNULATA. *Ner. testâ suborbiculari, depressiusculâ crassa, spirâ leviter exertâ, uncinata, infractibus spirâe depressis, deinde obsolete angulatis, convexis, spiralis annulato-costatis, aperturâ expansâ, labio effuso, vultu crenulato, columella superâ obscure crenulata, subulata; nigra, punctis paucis latius variegata, inferâ foveis distinctis albis latius cinctâ.*

THE RINGED NERITE. Shell somewhat orbicular, rather depressed, thick, spire slightly exerted, pointed,

whorls depressed at the upper part, then obsolete angled, convex, spirally annularly ribbed, aperture expanded, lip effused, crenulated within, columella obscurely wrinkled at the upper part, faintly toothed; black, variegated with a few yellow dots, encircled round the upper part with two broad white bands.

Hab. — ?

A solid orbicularly expanded shell, encircled throughout with ring-like ribs.

Species 79. (Fig. a, b, Mus. Cuming.)

NERITA GRANULATA. *Ner. testâ depresso-globosâ, solidiusculâ, spirâ planis-impressâ, infractibus spiraliter leviter, aperturâ expansâ, labio latius crenato, columella profuse granulata; crenata-nigra, columella pallidissima variegatissima.*

THE GRANULATED NERITE. Shell depressly globose, rather solid, spire flatly impressed, whorls spirally ridged, aperture expanded, lip crenulated within, columella profusely granulated; blue-black, columella faintly tinged with orange.

Hab. — ?

An orbicularly solid blue-black shell, distinguished in having the columellar area more than usually granulated.

Species 80. (Fig. a, b, Mus. Cuming.)

NERITA HELICINOIDES. *Ner. testâ ovato-luculentâ, spirâ subacuta, crenata, infractibus junctâ spirâ a depressiusculis, orbiculatis, subangustis, rivas aperturam costis, spiralis tenuicostis, aperturâ parvâ, labio effuso, columella declivi, obscure denticulata; lutescente, punctis nigris et rivas alternatim foveatâ.*

THE HELICINA-LIKE NERITE. Shell ovately turbinated, spire rather large, exerted, whorls somewhat depressed next the spire, rounded, rather narrow, contracted, spirally finely ribbed towards the aperture, aperture small, lip effused, columella slanting, obscurely toothed; yellowish, encircled with alternate bands of black and red spots.

Hab. — ?

Of a peculiar contracted ovately turbinated form, begimmed with alternate bands of black spots and rose

spots, reminding one of the *Helicina Tankervillei* or *palcherriana*.

Species 81. (Mus. Cambr.)

NERITA AFFINIS. *Ner. testâ ovato-turbinatâ, spirâ eadê
 ersetâ, infractibus saepeâ concavis, deinde calu-
 datus, subangustis, ceras aperturena contractis, spirâ-
 liter subanguste lizatis, apertura parâ, columellâ de-
 curre, edentulatâ; yrisen-âllâ, ceruleo-angeo obscurâ
 stentâ*

REL. ALLIED NERITA. Shell ovately turbinated, spir-
 much exserted, whorls concave round the upper
 part, then rounded, rather narrow, contracted to-
 wards the aperture, spirally rather obsolete-ly ridged
 aperture small, columella slanting, edentulate, grey-
 ish-white faintly streaked with blue-black

Tab. ———

Of the same peculiar contracted turbinated type as the
 preceding species faintly ridged, and grey-mottled



No. 1.



No. 2.



No. 3.



No. 4.



No. 5.



No. 6.



No. 7.



No. 8.



No. 9.



No. 10.

NERITA.

PLATE XIX.

Species 82. (Fig. *a, b*, Mus. Cuming.)

NERITA YOLDII. *Ner. testâ semiglobosâ, depressiusculâ, crassâ, spirâ obtusè planâ, anfractibus juxta spiram declivibus, obtusè obscurè liratis, apertura expansâ, labro effuso, intus incrassatâ, columellâ obsolete corrugatâ et granulatâ, minutè denticulatâ; niged., aurantiâ flavâisque oculatâ-florescens notatâ.*

YOLDI'S NERITE. Shell semiglobose, rather depressed, thick, spire obtusely flattened, whorls slanting next the spire, obtusely faintly ridged, aperture expanded, lip effused, thickened within, columella obsoletely wrinkled and granulated, minutely toothed; black, marked with zigzag spots and flames.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 151.

Hab. Red Sea.

A thickened obtusely expanded species, distinguished by a characteristic zigzag style of marking on an entirely black ground.

Species 83. (Fig. *a, b*, Mus. Cuming.)

NERITA PELLIS-SERPENTIS. *Ner. testâ ovato-turbinatâ, spirâ exertâ, mucronatâ, anfractibus rotundatis, undique densè liratis, apertura parvâ, columellâ obscurè denticulatâ; albida, punctis rufis densè promiscuè tessellatâ.*

THE SNAKE-SKIN NERITE. Shell ovately turbinated, spire exerted, pointed, whorls rounded, closely ridged throughout, aperture small, columella obscurely toothed; whitish, thickly promiscuously tessellated with red dots.

Hab. — ?

A small contractedly turbinated species, densely promiscuously tessellated with red dots.

Species 84. (Fig. *a, b*, Mus. Cuming.)

NERITA PATULA. *Ner. testâ depresso-semiglobosâ, plus minus dilatatâ, spirâ minutâ, impressâ, anfractibus*

spirâliter lineariliratis, angustis, gradatim latioribus, apertura ampliter expansâ, columellâ plano-excavatâ, medio granulato-corrugatâ, ebullatâ; purpurascens-roseâ, lineis fasciisque nigris albisque punctis circulatâ, columellâ dilatè aurantiâ, rugis nigrescentibus.

THE OPEN NERITE. Shell depressly semiglobose, more or less filated, spire minute, impressed, whorls spirally linearly ridged, narrow, gradually broader, aperture largely expanded, columella flatly excavated, granularly wrinkled in the middle, ebullate; purple-rose, encircled with black lines and bands white-dotted, columella faintly tinged with orange, wrinkles black.

RECLUZ, *Revue Zool. Soc. Cuvierienne*, 1841, p. 148.

Hab. Dumaguete, Island of Negros, Philippines; Cuming.

A light *Crepidula*-shaped species, prettily painted with white-dotted lines and bands upon a purple-rose ground.

Species 85. (Fig. *a, b, c, d*, Mus. Cuming.)

NERITA BEANIANA. *Ner. testâ depresso-ovatâ, spirâ impresso-planatâ, anfractibus angustis, lœvibus vel spirâliter lineariliratis, apertura expansâ, columellâ concavo-excavatâ, levè corrugatâ; œsculo-nigrâ, fasciis roseis punctisque albis circulatâ, interduum lineis albis, rugis columellaribus nigrescentibus.*

BEAN'S NERITE. Shell depressly ovate, spire impressly flattened, whorls narrow, smooth or spirally linearly ridged, aperture expanded, columella concavely excavated, finely wrinkled; blue-black, sometimes encircled with rose bands and white dots, sometimes with white lines, columellar wrinkles black.

RECLUZ, *Pro. Zool. Soc.* 1843, p. 200.

Hab. Island of Corrigidor, Philippines (under stones at low water); Cuming.

Allied to the preceding species, but narrower, and with the aperture less dilated. The fine black wrinkles on the columellar area are particularly characteristic.

NERITA

acutata, <i>Reeve</i>	XVI	68	<i>boesjapheea</i> , <i>Chemnitz</i>	I	2
affinis, <i>Reeve</i>	XVIII	81	Hehemoides, <i>Reeve</i>	XVIII	80
albicella, <i>Linnaeus</i>	XV	64	Hindsii, <i>Recluz</i>	VI	26
albipunctata, <i>Reeve</i>	XIII	61	histrio, <i>Linnaeus</i>	VI	27
annulata, <i>Reeve</i>	XVIII	78	Le Guillaumana, <i>Recluz</i>	IV	15
antiquata, <i>Recluz</i>	II	5	lineata, <i>Chemnitz</i>	III	13
Arabica, <i>Reeve</i>	V	20	Listeri, <i>Recluz</i>	VIII	36
Argus, <i>Recluz</i>	XI	53	Longii, <i>Recluz</i>	XI	52
Ascensionis, <i>Chemnitz</i>	III	14	<i>Melanoensis</i> , <i>Lamarck</i>	I	1
atereana, <i>Gmelin</i>	III	11	marmorata, <i>Reeve</i>	XVI	67
atramentosa, <i>Reeve</i>	VI	25	Maura, <i>Recluz</i>	IV	17
atrata, <i>Chemnitz</i>	IV	16	maxima, <i>Chemnitz</i>	V	22
atro-purpurea, <i>Recluz</i>	VIII	38	Neritoides, <i>Reeve</i>	V	21
aurantia, <i>Recluz</i>	XI	49	Neritopsoides, <i>Reeve</i>	XVI	69
balteata, <i>Reeve</i>	VI	28	nigerrima, <i>Chemnitz</i>	III	11
Beauviana, <i>Recluz</i>	XIX	85	nigra, <i>Chemnitz</i>	I	2
Bernhardi, <i>Recluz</i>	XII	57	nivosa, <i>Reeve</i>	XVI	66
bicolor, <i>Gmelin</i>	I	2	Novae-Guineae, <i>Lesson</i>	XIII	59
bifasciata, <i>Gmelin</i>	I	2	olegana, <i>Reeve</i>	X	47
biseta, <i>Reeve</i>	VIII	39	Orbignyana, <i>Recluz</i>	XIII	58
bullata, <i>Reeve</i>	XVIII	76	ornata, <i>Sowerby</i>	I	3
<i>Chemnitzii</i> , <i>Recluz</i>	IV	19	oryzarium, <i>Recluz</i>	X	46
chlorostoma, <i>Lamarck</i>	VII	32	patula, <i>Recluz</i>	XIX	84
chrysostoma, <i>Recluz</i>	IV	18	pellis-serpentis, <i>Reeve</i>	XIX	83
comma-notata, <i>Reeve</i>	XVII	72	peloronta, <i>Linnaeus</i>	II	8
costata, <i>Chemnitz</i>	II	6	picea, <i>Recluz</i>	V	24
Dehayesi, <i>Recluz</i>	II	7	plexa, <i>Chemnitz</i>	III	12
Doubloyi, <i>Recluz</i>	XVII	71	plicata, <i>Linnaeus</i>	IX	32
electra, <i>Reeve</i>	XVIII	70	polita, <i>Linnaeus</i>	I	2
erubescens, <i>Reeve</i>	XIII	54	præcognita, <i>C. B. Adams</i>	VII	30
Essingtonii, <i>Recluz</i>	VI	29	quadricolor, <i>Gmelin</i>	I	4
eximia, <i>Linnaeus</i>	I	1	ringens, <i>Reeve</i>	XVIII	75
eximia, <i>Lamarck</i>	III	12	Rumphii, <i>Recluz</i>	XIV	62
flosa, <i>Reeve</i>	X	48	Saviana, <i>Recluz</i>	VIII	57
florescens, <i>Chemnitz</i>	I	2	scalpta, <i>Reeve</i>	VII	31
fragum, <i>Reeve</i>	IX	41	seniungosa, <i>Recluz</i>	IV	19
fulgurans, <i>Gmelin</i>	XI	51	Senegalensis, <i>Gmelin</i>	VIII	35
fuliginata, <i>Reeve</i>	XI	50	signata, <i>Macleay</i>	X	14
funiculata, <i>Reeve</i>	II	9	Spengleriana, <i>Recluz</i>	XVII	73
gemmulata, <i>Reeve</i>	IX	40	squamulata, <i>Le Guillou</i>	XV	63
germanica, <i>Reeve</i>	XVIII	77	stella, <i>Chemnitz</i>	XII	66
Georgiana, <i>Recluz</i>	XVII	74	trissollata, <i>Gmelin</i>	IX	33
granulata, <i>Reeve</i>	XVIII	79	tertilis, <i>Gmelin</i>	III	12
Grayana, <i>Recluz</i>	VII	33	versicolor, <i>Lamarck</i>	XII	56
grisea, <i>Reeve</i>	V	23	vestillum, <i>Reeve</i>	XVI	65
grossa, <i>Linnaeus</i>	III	10	Yoldii, <i>Recluz</i>	XIX	82
haustrum, <i>Reeve</i>	VII	34			

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